ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regular Size Full Proposal

Country/Region: Lesotho
Project Title: Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho Phase II (IACoV-2)
Thematic Focal Area: Food security
Implementing Entity: World Food Programme
Executing Entities: Ministry of Environment and Forestry, Ministry of Agriculture, Food Security and Nutrition
AF Project ID: AF00000408
IE Project ID: **Requested Financing from Adaptation Fund (US Dollars):** 10,000,000
Reviewer and contact person: Neranda Maurice-George **Co-reviewer(s):** Farayi Madziwa
IE Contact Person:

Technical Summary	The project "Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho Phase II (IACoV-2)" aims to enhance the adaptive capacity of vulnerable and food insecure households and communities to the impacts of climate change on food security. This will be done through the three components below: Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action and gender-responsive last mile climate action (USD 2,332,754). Component 2: Systemic gender responsive awareness raising and communication on climate impacts and adaptation (USD 1,522,560) Component 3: Building resilience through community-based adaptation measures to strengthen food systems (USD 4,485,699). Requested financing overview: Project/Programme Execution Cost: USD 875,576 Total Project/Programme Cost: USD 9,216,589 Implementing Fee: USD 783,411 Financing Requested: USD 10,000,000

	The initial technical review raises several issues, such as USPs, detail and clarify of proposed activities and detailed budget, need for strengthening project components and activity description, strengthening, the cost effectiveness of the project, the need to strengthen alignment with key national policies and strategies and proper presentation of AF core indicator information as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.
Date:	9th January 2025

Review Criteria	**Questions**	**First Technical Review Comments 9th January 2025**	**Response**
Country Eligibility	1. Is the country party to the Kyoto Protocol and/ or the Paris Agreement?	**Yes.**	**N/A**
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	**Yes.** With only 9% of Lesotho's land being arable, the country is impacted by erratic rainfall, drought and cold spells. These impacts result in among other things results in pervasive land degradation is characterized by rainwater-induced gully, rill, and sheet erosion; shifts in cropping seasons; reduced agricultural productivity and increased food insecurity; new and increased pests and diseases and Water scarcity among others.	**N/A**
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	**Yes.** As per letter dated 10th March 2024.	**N/A**

	2. Does the length of the proposal amount to no more than One hundred (100) pages for the fully-developed project document, and one hundred (100) pages for its annexes?	**Yes.** The main proposal contains 98 pages. The proposal is 191 pages inclusive of the annexes.	**N/A**

	3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	**Not cleared.** Building on the successes of IACoV Phase I, the project will scale up and intensify activities in drought-prone districts—Mafeteng, Mohale's Hoek, and Quthing—while expanding to the vulnerable mountainous district of Thaba Tseka. The proposal identifies some concrete adaptation actions. Notwithstanding, most of the project components are capacity building and training. The proposal indicates that not all project sites have been identified. Little information is provided in the beginning on how this project deepens and expands results achieved through IACoV-1 on page 9, alluding to weather and climate information and agricultural extension services. Although Annex 2 presents lessons learned from the Phase 1, it is not clear how this translates to the actions in the proposed Phase 2 in most instances. **CAR1:** Please be guided by AF Guidance Document for Project/Programme with Unidentified Sub-	**CAR1:** The basis for the inclusion of USPs in the project relates to (i) localities that are not yet fully specified; (ii) beneficiaries for whom the targeting criteria have not yet been fully defined; and (iii) participatory choices of specific activities to be undertaken during project implementation, facilitated through the community-based participatory planning (CBPP) process. Regarding localities, the detailed project planning for phase II has resulted in the selection of 18 community councils in the four districts, based upon the climate risk analysis and socio-economic criteria as detailed on pages 10-14; however, the specific localities for community-level activities such as land restoration have not yet been selected. This will be dependent upon the CBPP process that will take place at a central location within each of the community councils, as mandated by the GoL. See rationale below for conducting the CBPP during project implementation. Regarding beneficiaries, the targeting at a broader scale is clear and has been set out on pages 14-15. Within the four districts, the target group for the concrete adaptation activities is poor and climate-vulnerable smallholder farmers across age and sex groups with high levels of vulnerability to current and projected climate risks. The project will target at least **60 percent females**, in recognition of the feminization of agriculture in Lesotho, and the differentiated needs and increased vulnerabilities of rural women. The project will further target rural female and male youth living in areas with high levels of climate risk and low employment

		Projects (English, French and Spanish) and make the necessary amendments in the re-submission. Considering that this is a scaling up of IACoV-1 project and that a comprehensive stakeholder process was undertaken, the required information should be able to be provided. **CAR2:** Please include a dedicated section/paragraph/table on the contrast between IACoV-1 anticipated and achieved high level or key results and IACoV-2 focus and expected outcomes would be useful e.g., highlighting youth as new dedicated target under IACoV-2. This would help provide immediate clarification on what scale-up entails/the extent of scale-up, e.g, increasing size of operations with same beneficiaries from IACoV-1 or expanding and replicating activities from IACoV-1 into new locations with new beneficiaries, which appears to be the case in Thaba-Tseka district. (explained on page 16 para 4). It would also be useful to include land area coverage to be rehabilitation and what area is covered by IACoV-2 compared to IACoV-1 to get clear sense of the increased scale.	opportunities; the **youth target will be 40 percent** of project beneficiaries. The **particularly vulnerable groups** identified for inclusion in the project are female-headed households, herders, poorer households, people living with disabilities (PwD), people living with HIV/AIDS, and young mothers. Within this target group, the targeting criteria will still be more clearly defined in response to the updated climate risk information presented during the CBPP process, as well as the adaptation knowledge developed in phase I which is to be shared systematically with beneficiaries during the CBPP process. Similar to the what was done during the AF phase I of IACoV, through the CBPP process, participatory planning of specific concrete adaptation activities to will be identified in the early stages of implementation. Under the WFP standard approach of CBPP, which has been adopted by the GoL not only for phase I but also more broadly across other development activities, the beneficiaries in this project will make informed decisions about whether and how to participate in specific activities during the early stages of project implementation based on their needs and priorities as a community.. As noted on page 34, Under Outcome 3.1, the GoL will be supported to train additional staff and implementing partners at national, district and community levels through a ToT approach so that they can support communities for local adaptation planning through CBPP. This ToT process will need to proceed the phase II CBPP activities, to ensure optimal empowerment of beneficiaries with up-to-date information. In the three southern

		CR1: It is noted that the detailed budget seems to highlight some details of concrete assets including their specifications e.g., 3000 small storage facilities (noted that "small is a vague term), 8 8x4metre satellite facilities, 1 seedbank (though type of seeds not mentioned) in each district etc., therefore the below points are actionable. **CR2:** Please consider including (apart from the information in Annex 5) a summary of key climate risks tied to vulnerabilities in the specific targeted project locations/sites should be included as part of the background section. This can be done for instance by reframing the subsections in the background section that are heavily focussed on country vulnerability co include the project location specific climate issues to highlight specific vulnerabilities that justify the overall project e.g., the vulnerability and barriers to adaptation could be more specific to the project boundaries/the 4 districts. **CAR3:**	districts, the ToT will be restricted to refresher training that will include sensitisation on integrating the CC/FS/GEN/NUT nexus into CBPP. This refresher training will include the key findings from the studies conducted under phase I, particularly those that have generated new knowledge on climate change risks and hazards in the three southern districts. Thus, for example, the Climate, Food Security and Nutrition Analysis, which was completed under Component 1 of phase I in February 2023, includes hazard mapping for six key indices of relevance to the livelihoods and food security of communities of the study area. This is important information as it points to specific risks for the three districts to be considered when advising community members during the CBPPs. In the new project sites in Thaba Tseka, more intensive ToT will be required to develop capabilities of district and local government staff and other stakeholders (traditional authorities and NGOs) to the necessary level. The ToT across all four districts will include training on the findings of the cost-benefit analyses of concrete community adaptation measures carried out under phase I (see Annex 9 for a summary of this), as well as on the findings and recommendations of the study to reduce PHL that was finalised in 2022. Each CBPP process will include detailed sensitisation on the CC/FS/GEN/NUT nexus, which will include SBCC on GBV and climate change links. This community mobilization activity will enable meaningful integration of gender, nutrition, protection and inclusion priorities. The community consultations conducted during the design of phase II provided important information

		1. It would be helpful to include a dedicated section (or table) comparing the anticipated and achieved outcomes of IACoV-1 with the focus and expected results of IACoV-2. For example, highlighting youth as a new target group under IACoV-2 would clarify the scale-up process. This would help differentiate whether the scale-up involves expanding existing operations with the same beneficiaries from IACoV-1, or replicating activities in new locations with new beneficiaries, as appears to be the case in the Thaba-Tseka district (explained on page 16, paragraph 4). 2. Additionally, including data on land area rehabilitation—comparing IACoV-2's coverage to IACoV-1—would provide a clearer sense of the increased scale. **CR3:** Please provide more detail regarding the increased scale of activities and land area.	on the disaggregated climate-related vulnerabilities in each district, as well as the identified adaptation needs, as summarised in section II.H and documented in detail in Annex 5. Building on these general insights from various socio-economic groups, the CBPP process is carried out early in project implementation to identify specific activities, technical needs, and implementation strategies. This process is more time- and resource-intensive than a simple consultations process. It includes a transect walk, during which the community members, with support from technical experts from government departments, NGOs, or CBOs, assess the actual locations, bill of quantities, work norms, sustainability measures, and other relevant factors for potential activities. Implementing detailed planning through CBPP once a project is approved further assists in avoiding consultation fatigue and raising false expectations in the community members. Thus, the key differences between the community consultations conducted during project design and the CBPP process conducted post project approval lie in CBPP's far greater level of detail, technical specificity, accompanying sensitisation, and development of beneficiary agency. CBPP unlocks informed decision making to enable a more focused and effective project implementation. CBPP is thus a powerful tool for empowered participatory planning and co-creation. It is implemented to ensure that the right activities are planned for the right people, at the right location, for the right objectives, and during the right season.

		CR4: Please identify the assets as well as information on the, type and location of concrete activities that will have cash based transfers; type and location of activities that will have vegetable gardens and short cycle animal farming and fish farming; type and location of commodity processing equipment and infrastructure; which markets will access be enhanced as a result of project infrastructure/assets etc. If possible, the map on page 10 could also show Phase I implementation areas and Phase II implementation areas to highlight the extent of scale up. **CR5:** The second paragraph under component 3 on page 29 states that "Adaptation activities will be selected in each project site based on the community-based participatory planning (CBPP) process, during which the community members (covering all livelihood groups) will discuss their adaptation needs and select priority adaptation outcomes. The adaptation menu of options (Table 3) has been developed based on lessons learned from phase I and the cost-benefit	The CBPP process results in the development of community action plans (CAPs) that are valid for a period of three to four years. Even where a locality will be common to phase I and phase II, the CAPs have already been in place for four years, and will need to revisited and revised in a participatory fashion, to incorporate changing realities (including climate risks and changing livelihood strategies), as well as integrate new knowledge such as that gained from the studies completed during phase I. Excluded activities for each category in the menu of adaptation options have been provided in Annex 7, to ensure that potential negative environmental and social impacts are minimized or avoided. Thus, for example, potential climate-resilient agricultural technologies and support will not allow for any large-scale monocultures (>2ha of contiguous land with 1 culture); tree production excludes introduction of invasive species; storage facilities to reduce PHL that are more than 100m3 will be prohibited and no storage facility can exceed a surface area of 25m2. Please see Table A7.1 on pages 165-166 for the full list of excluded activities. This table also specifies some localities to be avoided – for example, there will be no agricultural activity in conservation areas and/or natural reserves. We have reviewed the guidance document on USPs and the approach is consistent with this guidance. Given the above discussion of localities identified at a broad level and activities delineated in a framework, with clear excluded activities, the USPs contained in the project can be classified as

		analysis of adaptation options conducted during phase I". Please be more specific regarding which options would be implemented in which districts; which areas would require rehabilitation and the type of rehabilitation as well as extent of land area targeted; Number of homesteads that will be targeted for homestead farming; what type of vegetables and crops would be grown (sorghum and beans are already mentioned); what type and size (specs) of water tanks for water harvesting, typical size of micro ponds and sand dams etc. **CR 6:** Page 51 states that the sand dams would not exceed 2m in height. Please provide technical specifications of the proposed infrastructure and rehabilitation methods and materials for additional clarification on possible environmental and other impacts. **CR7:** Drawing from phase I of the project, at this point it is expected that there would be clear identification of the species of trees and type (whether forestry or fruit trees or both) that will be	'partial USPs', according to the AF guidance document on USPs for IEs. Additional detailed clarifying text on the USPs has been added to Annex 7, with a brief summary of this added to section II.K, page 72. Additional clarifying text on the value of CBPP and the difference between community consultations and CBPP has been added to pages 32-33, to complement that on page 34 which spells out the necessary sequencing of activities and inputs into the CBPP process. Please see the response to CR1 below which clarifies the significant, and diverse, concrete adaptation assets that will be developed during phase II, as set out in the adaptation menu of options. Regarding the lessons learned from phase I, as set out in detail in Annex 2, page 19 of the main text of the proposal provided a summary of the key lessons learned from phase I that have been integrated into the design of phase II. To provide greater clarity on how these key lessons learned translate into the actions in the proposed phase II, we have added a **new Table 4 (p 21-22)**, which includes signposting regarding which project outputs contain elements that address respective key lessons learned. The ensuing narrative text (pages 22-44) that describes the project's three components provides further detail on how these and other lessons are integrated into the project actions.

		planted to avoid maladaptation e.g., planting the wrong trees could lead to increased localized warming, water scarcity, negative impacts on biodiversity, invasive species, poor growth of the trees etc. At this point and especially drawing from the results from Phase I of the project, at a minimum, the broad location and regions within the districts requiring specific adaptation options should be identifiable and the concrete nature of those interventions could be more clearly articulated. Could the project proponent please explain why the CBPP was not incorporated as part of the already comprehensive stakeholder consultation done as part of IACoV-2 project development process? **CR8:** Please provide justification for activity Activity 1.2.2.b and why such study should be financed by this project? It appears the study focusses on a broad topic that may or may not impact the current project. **CR9:** Output 1.1.1 mentions LMS staff capacity. Please provide	**CAR2:** A new **Table 3** (page 18-19) has been developed which summarises the distinction between some of the anticipated and achieved key results of IACoV phase I and the focus and expected outcomes of IACoV phase II, drawing on the information contained within the project results framework as well as some of the IACoV phase I project documents. This is provisional as the final evaluation has not yet been conducted for phase I; thus, the achieved results have not yet been independently evaluated. **CR1:** While the final decisions on specific concrete adaptation activities will be made during the CBPP process, the framework of potential activities have been clearly formulated and are set out in the adaptation menu of options. Further clarifying text on the range of concrete adaptation assets to be developed has been added to page 17. **CR2:** As noted on page 10, the high levels of vulnerability in the four districts have been confirmed using two complementary and mutually reinforcing frameworks, namely the 2015 Integrated Context Analysis (ICA) and the NAPA, as well as through the 2024 Integrated Food Security Phase Classification (IPC), the climate risk analysis conducted in 2023 (see below), and the stakeholder and community consultations carried out to develop the proposed phase II of IACoV. Regarding district-level detail on the barriers to adaptation, there is indeed discussion of some district-level differences with respect to barriers on

		more precise information on how many staff. Similarly, there is mention of upgrading the HPC. Please indicate how many EWSs will be installed, what type of systems/technology/model etc. **CR10:** Output 1.1.3 about innovations to generate should be well developed and thought out already at this point of the proposal so that these interventions are identifiable, especially as the proposal is drawing from an existing Phase I project. It appears also the plan is to develop a strategy and to implement pilot LMS – please clarify what LMS projects are to be piloted. **CR11:** Please amend outputs so that they are concrete enough to articulate expected results that can be measured.	pages 8-10. Additional clarifying text has been added to pages 8-10. **CAR3:** 1. As for **CAR2**. A new **Table 3** has been developed which summarises the distinction between some of the anticipated and achieved key results of IACoV phase I and the focus and expected outcomes of IACoV phase II, drawing on the information contained within the project results framework as well as some of the IACoV phase I project documents. 2. Data on land rehabilitation in phase I and II has also been added in **Table 3** (pages 18-19). **CR3:** The new **Table 3** (pages 18-19) provides more detail regarding the increased scale of activities and land area. **CR4:** The response to **CAR1** above has clarified that the specific localities for discrete community-level activities such as land restoration have not yet been selected. This will be dependent upon the CBPP process that will take place at a central location within each of the community councils, as mandated by the GoL. The rationale for conducting the CBPP during project implementation has also been provided above. Additional clarifying text on the value of CBPP and the difference between community consultations and CBPP has been added to pages 32-33. The concrete activities that will be implemented with cash-based transfers are the community-level soil and water conservation activities. The CBT will be provided to beneficiaries working on community-level adaptation assets such as the soil and water

Commented [SD1]: EWS?

			conservation measures and land restoration activities described in Table 5, to help the most vulnerable food insecure households to cover their lean season food gap. Additional clarifying text has been added to page 15. As described above, the exact location of the community-level activities to be implemented through CBT, as well as the HH-level activities to be supported through training and inputs, will be determined during the CBPP process during the early stages of project implementation. Likewise, the type and location of commodity processing equipment and infrastructure, and which markets will be accessed, will be determined after the CBPP process has been conducted. However, as summarised in Table 4 and described under the narrative discussion on output 3.1.3, market access activities will focus on the priority climate-resilient value chains already determined during the community consultations process, namely beans, sorghum, vegetable and fruit, medicinal plants, and rosehip. The map on page 10 will be updated early in project implementation to show the extent of the scale-up once the final identification of the localities, within the 18 community councils, has been conducted. The updated map will be shared with the AF in the 1st PPR. As clarified elsewhere in the text, four of the 18 councils included in phase I will also be included in phase II. More importantly, the new **Table 3** (pages 18-19) has clarified the extent of scale up of land rehabilitated, as well as other activities to be scaled up. A footnote has been added to page 11 to confirm this clarification.

			CR5: The response to **CAR1** above has clarified that the specific localities for implementation of discrete community-level activities such as land restoration, as well as the activities to develop household-level adaptation assets, have not yet been selected. This will be dependent upon the CBPP process that will take place at a central location within each of the community councils, as mandated by the GoL. The rationale for conducting the CBPP during project implementation has also been provided above. Additional clarifying text on the value of CBPP and the difference between community consultations and CBPP has been added to pages 32-33. It is not possible to specify exactly the number of homesteads that will be targeted for homestead farming, as this will depend on participatory decision making under the CBPP. However, the project target for household-level adaptation assets is at least 5,000, as was included in the project results framework and is now included in the new Table 3. The priority crops to be targeted for support, include value chain support, are sorghum and beans as already mentioned). A range of nutritious vegetables will be promoted, including beetroot, carrots, spinach, and indigenous vegetables. Additional clarifying text has been added to pages 36 and 39. Household-level water harvesting will be extremely small-scale, with tanks Low-cost micro ponds for livestock will be no larger than 10mX10m, with 2m max. depth – this has been added to page 37. Ponds to support small-scale fish farming will be no larger than 10mX10m, with 3m max. depth, as noted on page 38 and in Annex 7.

			Sand dams are typically 1 or 2 metres wide at the bottom, tapered, and 1 or no more than 2 m high, as spelled out on page 169 in Annex 7. Additional clarifying text has been added to pages 37 and 39. The process for ES screening of the USPs such as those mentioned above is described in detail under the response to **CAR10** below. Revised text on this can be found on pages 179-180 of the proposal, in Annex 7. **CR6:** Several paragraphs spelling out the technical specifications of the proposed sand dams have been added to Annex 7, page 169, along with a photo (Figure. A7.1) of a sand dam built in 2024 at Waterfall in Lesotho, with solar pump. A short summary has been added to section II.E, page 55. **CR7:** It is agreed that there should be clear identification of the species of trees – whether for forestry, agroforestry, and/or fruit – that would be planted to avoid maladaptation. This is the rationale for conducting activity 3.1.1.g., namely, to conduct a climate-informed tree suitability study (agroforestry, afforestation, fruit trees), and to use the findings of this study to inform the choice of trees, to avoid maladaptation. The existing text that provides the rationale for activity 3.1.1.g. has been moved from the discussion under output 3.1.2 to the discussion under output 3.1.1, to provide greater clarity on the proposed study. Please see page 34, under output 3.1.1.

			CR8: Activity 1.2.2.b, which is the study to understand and prioritise national government and private sector funding opportunities towards sustainability of the national multi-hazard anticipatory action system, is critically important to safeguard the sustainability of the AF investments in both phase I and phase II. The study will ensure that additional resources can be mobilized by the GoL during phase II of the project to cover additional hazards through AA that are not covered by the AF investments, which target drought AA. This is important as hazards do not always occur in isolation, and will mean that the AF investment can be efficiently used to promote a holistic approach to AA across hazards. It will also ensure sustainability for AF investments once the project is concluded. It is therefore considered an essential activity of direct and important relevance to IACoV phase II. Additional clarifying text has been added on page 25. **CR9:** Additional clarifying sentences have been added to page 24. **CR10:** Although the proposal is for phase II of an existing project, it is understood that innovation is an important area for the AF, as it is for the GoL and for WFP. After further consultation with Lesotho Meteorological Services (LMS), it has been decided to focus on piloting only one innovation: a 'Run for Climate Change' event. LMS organized a similar run in 2022 in the district of Mafeteng, as part of the celebration of World Meteorology Day, which falls on the 23 March each year. While participation in this event was free hence no revenue was collected, there was a good

			turnout despite logistical challenges. This is a solid indication of the appetite of Basotho to participate in such a race. The are many examples locally, regionally and internationally, of successful races which raise millions of USD per event. Activity 1.1.3.a proposes to assist LMS to develop a strategy for innovative revenue generation, which will provide the context within which the race could be held. This is important to prevent a more *ad hoc* approach to piloting the race that would allow for synergies with other LMS possibilities for revenue generation to be optimized. After this race has been piloted, it is proposed to retain and implement activity 1.1.3.c, which aims to assist the GoL to develop a joined-up approach to climate change financing, in the light of the implementation of activities 1.1.3.a. and 1.1.3.b. Thus, both activities 1.1.3.a. and 1.1.3.c. are essential for a coherent approach to supporting LMS's own revenue generation, to avoid the frequent error in development and adaptation projects of *ad hoc* implementation of pilots that do not deliver ongoing results; these two activities, although relatively light and not resource-intensive, together constitute a key component of the overall sustainability strategy to safeguard the AF investments made through IACoV. Clarifying text has been added to the narrative of outcome 1.1.3 on page 25. **CR11:** This comment was discussed with the AF Secretariat in the call held on 23 January 2025. It was agreed that the project outputs are indeed concrete enough to articulate expected results that

			can be measured, therefore no further action was required.

	4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Not cleared.** As per information on page 42-46. The project is estimated to reach 186,492 direct beneficiaries and 1,253,468 indirect beneficiaries. It targets poor, climate-vulnerable smallholder farmers across all age and sex groups in four districts. **CAR4:** Please strengthen the content to more directly address economic benefits such as increased income, increased agriculture production, job creation, infrastructure development from asset creation benefiting crops and livestock, and market access, which are all evident from the proposal, and include figures and calculations where possible to highlight the baseline scenario and the "*with project" scenario.* **CR12:** The first paragraph under section IIb concludes by highlighting increased income as the overall first economic benefit. However, the income aspect is again repeated in paragraph 4. It would be good to streamline the content and to include figure (estimate or actual) on the current	**CAR4:** The proposal specifies a projected increase in income for the project as a result of the participation of the CBT beneficiaries. Additional clarifying text can be found on page 46. In addition, detailed figures are provided for cost effectiveness based on the economic analysis conducted under phase I for five different adaptation option that have consequently been included in phase II, as explained at pp. 46-47-48. **CR12:** Paragraphs 1 and 4 dealing with increased income have been merged to further streamline the content. **CR13:** It is unfortunately not possible to provide figures for the climate-related disasters in the past year or so that have occurred in the project area (combined) and the expected cost savings for the project area, as opposed to for the whole country, as this information has not been collected systematically. However, as noted on page 11 of the proposal, the recent Integrated Food Security Phase Classification (IPC) highlighted that although all 10 districts in the country are projected to be in a Crisis food insecurity situation (IPC Phase 3) which calls for urgent interventions to safeguard lives and livelihoods, Quthing and Mohale's Hoek are amongst the most affected districts, with 5 percent of the population classified in Emergency (IPC Phase 4) for each. Thaba Tseka has 20 percent of its population in Crisis food insecurity situation, with malnutrition levels in the community councils in which the project will work amongst the highest in

		household income and expected income growth due to the project. **CR13:** Paragraph 3 mentions "Reduced losses from climate-related disasters", and it would be good to give an indication of how many disasters e.g., in the past year or so have occurred in the project area (combined) and the expected cost savings for the project area instead of the whole country. **CR14:** Please delete the phrase "which could not be detected by the excel sheet" from the sentence in paragraph 4 and rephrase the sentence to explain the expected IRR. As it stands the sentence implies that the IRR is viable because the figure could not be read in excel.	the country.[1] This situation is largely because of the unprecedented 2023/2024 El Niño-induced drought. As highlighten at p. 47, a cost-effectiveness assessment of the AA conducted in Lesotho in the four project districts in 2024 found the estimated relative net benefits of doing anticipatory versus post-shock assistance to be, at minimum, about USD899,000, relative to providing post-shock assistance to the same size group of beneficiaries. This result can also be understood as every 1 USD in anticipatory action being equivalent to USD 1.28 dollar in post-shock response to yield the same quantity of benefits.[2] This paragraph has been added to page 47. **CR14:** The phrase has been deleted and the sentence now makes it clear that keyhole gardening yields a far higher internal rate of return (IRR) than the discount rate of 5%. This implies that there are returns on investment for keyhole gardening, which displays a high return on investment because of low operational cost, less seeds used for maximum yield and the capacity to hold moisture longer. This clarified text can be found on page 46.
	5. Is the project / programme cost effective?	**Yes.** As per information included on pages 46-48, which outlines comparison with some alternative options contemplated in the initial phase, with quantified estimates, and in Annex 9, which presents a cost benefit analysis of the proposed actions.	**N/A**

[1] Lesotho IPC Acute Food Insecurity Analysis, May 2024 – March 2025. Published 8 August 2024.
[2] WFP (2024) Cost Effectiveness of Anticipatory Action: Lesotho, Madagascar and Mozambique

	6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	**Not cleared.** **CAR5:** Please strengthen the linkages of the project to the key strategies and documents referred. For example, in reference to Lesotho's NAPA, a linkage to how the project feeds into the priorities identified in the NAPA, such as: Improve Resilience of Livestock Production Systems Under Extreme Climatic Conditions in Various Livelihood Zones in Lesotho; can be made. **CR15:** Please address the following: 1. Since The National Strategic Development Plan (NSDP)-II 2018-19/2022-23 has already been superseded by (NSDP II 2022/23 – 2027/8) please only refer to the current version. 2. Lesotho's NAPA was submitted to the UNFCCC in 2011 and the Integrated Context Analysis was undertaken in 2015, both about a decade ago. A climate VA specific to the project boundary and location would be good to re-confirm status of	**CAR5:** The linkages of the project to the key strategies and documents referred to has been strengthened at page 54. **CR15:** 1. The required action has been taken; however, as the NSDP-II is an extension of the NSDP-I, and does not fully supersede it, the text mentioning NSDP-I is retained as a footnote, considering its greater specificity. (page 53) 2. The most recent climate assessment undertaken was the climate risk analysis carried out for the three southern districts during phase I of IACoV, as stated on page 13. No additional text has been added as this climate assessment is already covered in some detail on pages 13-14.

		vulnerability. Please include a more recent assessment if available.	
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	**Not cleared.** Table 4 on pages 51-52 provides a useful indication of the relevant standards that may be applicable to the project. However, **CR16:** 1. Please include an additional column that indicates whether a licence or authorization certificate would be required would be useful, e.g., water use licenses, construction permits for rangeland and wetland rehabilitation where relevant. 2. Please also include an explanation of where the licence approval process/discussion is at this point with the relevant issuing authority would also be useful.	**CR16:** 1. An additional column has been added to what is now **Table 6** that indicates whether a licence or authorization certificate would be required or would be useful. The only activity for which this is relevant is the potential construction of sand dams. 2. Once the localities for any potential sand dams have been identified, during the CBPP process, the necessary authorisation will be applied for. Please see the clarifying inputs to this effect in **Table 6** on pages 56-57.

	8. Is there duplication of project / programme with other funding sources?	**Not cleared.** The project complements many other climate activities in the 4 districts and in the country. However, the first paragraph under the sub-heading "Social benefits" on page 44 includes a sentence that reads "*Farmers who have already graduated in IACoV phase I will not be supported with transfers but will continue to receive targeted technical support*...". **CAR6:** 1. Tying back to the comment in review criterion 3 under "project eligibility" in this review sheet, please amend the proposal to clearly indicate that it is not targeting the same beneficiaries from Phase I to clearly define the aspect of scaling up in the current proposal. 2. Though captured under the ESP risk screening on page 69, in terms of category B project beneficiaries, please highlight that children are excluded from labour related activities mentioned in the	**CAR6:** 1. Clarifying text on the beneficiary targeting on phase I and II has been added to page 15. The new **Table 3** (pages 18-19) includes additional information. 2. Children will not participate in the CBT activities and are excluded from labour related activities but will benefit from awareness raising and educational activities under Outcome 2.2. Thus they will not be Category A beneficiaries, but will fall under Category B. As part of the school climate change and nutrition clubs (activity 2.2.1.d.), each club may choose to implement some small-scale environmental education related activities, such as climate-resilient vegetable gardening. In such cases, this would be on a similar basis as a school science project, only older children (above the age of 15) would be involved, and any gardening would be entirely on a voluntary basis. An explanatory note has been added to pages 15 and 197-198. **CR17:** 1. The baseline and the targets for as many of the indicators as is possible are specified in the project results framework, indicating the nature of the scale-up. However, since some project areas and beneficiaries are the same as for phase 1, while others are different – in Thaba Tseka as well as in the 3 southern districts – it is not possible to provide an overall baseline. Therefore, this will be developed during the baseline study, which will be completed in year 1 of IACoV phase II as per the AF Evaluation Policy. This will be integrated into the project results framework. The project baseline report and the updated project results framework, including the AF Core Indicators, will be shared with the AF at the end of year 1, no later than the

		description, such as climate-smart agriculture, water harvesting, vegetable production, etc. as well as apiculture and off-farm livelihood diversification activities at the household level. Page 187 table note 7 states that category B beneficiaries includes children. **CR17:** 1. As this is a scale up of IACoV-1, in terms of project beneficiaries, please clarify what is the baseline and what is the target? 2. In addition, on category A beneficiaries, please articulate what type of beneficiaries are being targeted for the CBTs, i.e., male and female small holder farmers only or those including youth only, or also including people with disabilities, etc.	submission of the first PPR. A sentence in the M&E section on page 85 and a footnote have been added to page 87 to explain the above. In addition, Table 3 which sets out 'Anticipated or achieved results for IACoV phase I versus phase II, indicating increased scale' has been developed and can be found on pages 18-19 of the proposal. 2. The CBT beneficiaries, who comprise Category A, will be selected from the more food-insecure households. As noted on page 14 of the proposal, the particularly vulnerable groups identified for inclusion in the project are female-headed households, herders, poorer households, people living with disabilities (PwD), people living with HIV/AIDS, and young mothers. As many of these groups as is feasible will be included as CBT beneficiaries. However, in the case of herders, they have other animal herding responsibilities which usually preclude them from more labour-intensive asset creation activities. Therefore a specific package of interventions to benefit herders has been developed (see page 40), which does not rely on CBT-related activities. Child care will be provided to allow young mothers from food-insecure HHs to benefit from CBT, as implemented in phase I. Amongst the food insecure HHs, those with people with disabilities will be prioritised for participation in CBT activities. The standard work norms that allow lighter works allocated to women will be used. However, in most cases, an able-bodied member of the HH would carry out the asset creation work, on behalf of the person with disabilities. People living with HIV/AIDS who are on antiretroviral treatment are usually able to participate in CBT-enable asset creation. In

			summary, the Category A beneficiaries for CBT include male and female smallholder farmers, youth, HHs with people with disabilities, and those from the other identified disadvantaged groups. 60 percent of the CBT beneficiaries will be women, and 40 percent will be youth. Further explanatory text has been added to page 14, and to the beneficiary table notes in Annex 11.
	1. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	**Yes.** As per components 1 and 2 of the project integrate a learning, knowledge, management and communication system.	**N/A**

	2. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Not cleared.** **CAR7:** The stakeholder consultation done seems comprehensive. However, it is not clear how these assisted in framing the activities presented in the proposal. 1. Additionally, it is expected that the consultation should have also resulted in clear identification of concrete adaptation infrastructure/assets needs in the different regions, with project sites already being identified. In order to adequately provide information on the concrete measures planned for each district, there may be need to go back and consult with the stakeholders again. This is especially relevant because the project is a scale-up of phase I, and so the specific assets and target groups that need those assets should be clearly defined at this stage.	**CAR7:** 1. The comprehensive community consultations conducted during the design of phase II provided important information on the disaggregated climate-related vulnerabilities in each district, as well as the identified adaptation needs, as summarised in section II.H and documented in detail in Annex 5. These have been integrated throughout the project design and components. Regarding the identification of concrete adaptation measures at this stage, clarification on the project's approach and on the CBPP process was provided in response to CAR1. 2. As discussed with the AF Secretariat in the call held on 23/01/2025, the extensive community consultations have resulted in insights from various socio-economic groups that have been used to develop the project design as well as the adaptation menu of options. Following WFP's approach, as mandated by the GoL during phase I and endorsed by the GoL for phase II, the CBPP process is carried out early in project implementation to identify specific activities, technical needs, and implementation strategies. This process is more time- and resource-intensive than a simple consultations process. The difference between the consultations process and CBPP is presented in our response to CAR1 and CR1 above. Therefore, it is not considered to be feasible or necessary to undertake further consultation at this stage to identify concrete activities and other specific project activities as well as beneficiaries. Additional clarifying text on the value and timing of CBPP and the difference between community

		2. Please undertake further consultation and the CBPP to identify concrete activities and other specific project activities as well as beneficiaries within the 4 targeted districts. 3. Please further clarify in the proposal how the gender dynamics identified through the consultative process and articulated in the annexes will be sufficiently addressed through the proposed project activities.	consultations and CBPP has been added to pages 32-33. 3. The proposal provides information in several places on how the gender dynamics identified through the consultative process and articulated in the annexes will be sufficiently addressed through the proposed project activities. An important mechanism will be through the adoption of the climate change / food security / gender / nutrition nexus (CC-FS-GEN-NUT) as a central organizing concept in response to the findings of the project community consultations and gender assessment. As noted in Box 2 (page 19), the project community consultations and gender assessment (Annex 6) highlighted that both gender and nutrition are causally interlinked with climate change and food security in Lesotho. For example, the increasingly erratic rainfall and more frequent drought and dry spells result in poor agricultural productivity and frequent crop failure; this low food production leads to poor nutritional status of children which affects their physical development, school performance and attendance, prospects in life, and, ultimately, the economy of the country. Food insecurity in communities often leads to gender-related issues such as adult negligence, teenage pregnancy, underage sex-work and rape; which were raised as concerns during the community consultations. An early step in project implementation will be to spell out what the nexus means in practical terms in the project context, after which materials will be developed that provide practical guidance for implementation (Output 2.2.1). These materials will

			be used to inform all project activities, as described in the proposal. As noted on page 20, ongoing sensitisation is needed – and will be implemented *inter alia* through the CBPP process implemented in each of the 18 councils – to counter the deep-seated social and cultural norms in Lesotho that drive and normalize GBV, which has been exacerbated by the increased food insecurity and poverty resulting from climatic changes. The project will build on and strengthen the social and behaviour change communication (SBCC) on GBV that was supported during phase I, working with key partners including the Police Child and Gender Protection Unit (CGPU), the Ministry of Gender at the district level and NGOs active in the field, and involving all community age and sex groups in this. In addition to advocacy to promote the implementation of policies and practices that reinforce SBCC efforts and provide a supportive environment for addressing GBV, the project will identify the referral pathways and build the capabilities of officers (government and WFP) to sensitize communities on the GBV referral pathways. As stated on page 34, each CBPP process will include detailed sensitisation on the CC/FS/GEN/NUT nexus, which will include SBCC on GBV and climate change links. This community mobilization activity will enable meaningful integration of gender, nutrition, protection and inclusion priorities. No such sensitisation, centring on the CC-FS-GEN-NUT nexus, has been conducted in Thaba Tseka district, where the

			population suffers from high levels of GBV, precarious food security, high levels of early marriage, and poor nutritional indicators. Thus the implementation of these SBCC-based sensitisation processes is expected to result in improved gender dynamics in the project areas. The targeted packages of interventions for youth and herders across all three components will include sensitisation on nutrition and GBV (as stated on page 41). Under Component 2, a central element of the climate change awareness raising strategy at national, district and community levels will be strong messaging on the links between climate change, food security, gender and GBV, and nutrition, through the adoption of the CC-FS-GEN-NUT nexus as the central organising concept (as stated on page 49). The project's adopted programmatic approach to training, with annual / regular refreshers and clear desired outcomes of training, will include ongoing and systematic capacity development of district extension staff as ToTT across departments on CBPP, climate-resilient technologies and approaches, GBV and protection, CC-FS-GEN-NUT, etc. (output 3.1.2); training, including on CC-FS-GEN-NUT, for climate change champions from different socio-economic backgrounds e.g. lead farmers, youth, CC/environment clubs at schools, lead herders (output 2.1.1); and ongoing capacity strengthening for media on CC/FS/GEN/NUT (output 2.1.1) – please see pages 70-71 for this and additional relevant text.

			In addition, the project includes dedicated support from the WFP Country Office Gender specialist on a cost-sharing basis, support from the Gender and Protection Unit at WFP Regional Bureau for Southern Africa (RBJ) , and obtaining the regular services of a gender-specialist with adequate gender knowledge in the local context to ensure gender equality and responsiveness throughout; budget for this is included under the relevant components. The project's progress, impacts, and benefits will be monitored and assessed using gender-disaggregated data and gender specific indicators. Gender transformation will be measured during/after the project, using WFP and GoL indicators to track women's empowerment, so that changes associated with the root causes of gender inequality in agriculture can be tracked. Please see page 71 for this text. The 'picture' of the nexus will be built up through simple lessons learned templates that document the approach taken to apply the nexus, including the gender dynamics, in project activities and that identify successes and potential refinements. Page 49 summarises a number of the ways in which the project will promote greater gender equality and women's empowerment, as well as youth empowerment, as follows: Through this project, women, female and male youth, herders, as well as men, will be trained on the importance of nutrition as well as skills development in order to generate income through provision of inputs, seeds and water for irrigation and drinking. This project will aim to contribute towards gender equality and women's empowerment by allowing for increased

			decision making, educational attainment, economic integration as well as improved autonomy related to work load and health. The project will deepen the approach of phase I to training both men and women to improve the nutrition of their children by including herders in a meaningful way. Additional emphasis will be placed on enabling IGAs for women, as well as for youth and herders, and facilitating market linkages to ensure economic benefits. Community-based adaptation planning, through the CBPP process, represents a powerful vehicle for women's empowerment. The project will empower women and men, female and male youth, for more climate-resilient livelihoods in many ways, including by (i) increasing the number of stakeholders receiving timely threat and hazard information by 90 percent; (ii) bringing about a significant increase in the number of smallholder farmers, disaggregated by gender and age, who have enhanced access to localised climate services (target TBD at inception, 60 percent will be female and 40 percent youth); and by (iii) ensuring that 60 percent of the targeted population will be aware of predicted adverse impacts of climate change, and of appropriate responses to apply in decision making on their livelihood strategies. This text is contained on pages 48-49. Moreover, the project will conduct a GBV assessment and develop a protection risk mitigation plan (page 50). All of the key recommendations of the Gender Assessment have been fully integrated into the project activities and project results framework, thus removing the necessity for these to be further

			specified through additional indicators into the Gender Action Plan. These include developing project-specific gender guidance, including project-specific gender guidelines and an easy-to-use checklist for gender mainstreaming during implementation, building on relevant lessons learned from IACoV phase I as well as WFP and GoL best practice, and in accordance with the Gender Policy of the AF. This will spell out how the functions and roles expected for different sub-groups of women and men to take on in the context of the project should be implemented to not adversely affect time commitments and to consider mobility restrictions/needs [During inception]. Please see pages 162-164 for more information, as well as for the governance arrangements for gender mainstreaming, which are also included in the section of the proposal dealing with implementation arrangements, as well as the Gender Action Plan on pages 161-166 for further specific gender-related indicators and targets.
	3. Is the requested financing justified on the basis of full cost of adaptation reasoning?	**Not cleared.** The proposal explains the baseline scenario and the added value of each project component. However, the issue of micro-credit facilities being strengthened and used to provide additional financing to project beneficiaries needs further clarification. **CAR8:** 1. Please explain whether micro-credit will finance activities	**CAR8:** 1. The project will provide direct support to beneficiaries under output 3.1.3 to promote entrepreneurial opportunities and establish market linkages for climate-resilient value chains. This support will strengthen the capacity of community entrepreneurs to start and grow their business enterprises and implement their chosen priority adaptation options, as identified through the CBPP process. As the enterprises grow and generate returns, some community entrepreneurs might then wish to access micro loans from micro-credit institutions to further expand their businesses. These activities will complement those that are supported by the project, such as the trainings,

			already identified and funded by the current project or will finance additional activities that fall outside of the project and provide the rationale. If the financing will augment current project activities, please explain how and at what point in the project life this credit would become necessary? If the credit scheme is to finance additional activities outside of the current project, please explain why those activities would not be funded by the current project as the AF provides funding on a full cost of adaptation basis?	inputs, and enhanced market access provided to beneficiaries. The project is thus facilitating enhanced access to financial services like savings and small loans from the rural micro-credit facilities and enabling the autonomy of small entrepreneurs, who will be capacitated by the project to be able to think through and diversify their own LHs, beyond the narrower envelope of the project, with its limited timeframes. 2. The project will work in partnership with a range of other private lenders and business support institutions like Econet and the Lesotho National Development Corporation to strengthen the capacity of microfinance associations. This will not necessarily be through a formal partnership, but will include advocacy and sensitisation with potential lenders so that they are aware of the vulnerability of potential clients and become more effective in serving rural communities to promote sustainability of small and micro enterprises. This will include strengthening their skills to build systems that can easily follow-up on the borrowers and ensure proper utilization of funds, skills to develop tailored lending models, and simplified loan application processes and repayment modalities.
			2. In addition, could you please provide more clarity on how these micro-credit facilities will be strengthened, whether formal partnership between WFP and private lenders like EcoNet	3. The project will support the micro-credit institutions to develop lending models which prioritise small loan services to groups. In these models, the group can promise to monitor each member's loan utilization and re-payment and in return get lower interest rates; the member's subscriptions could also be put up as collateral, forcing them to repay their loans or lose their group membership. Other rural finance institutions may

		and the Lesotho National Development Corporation mentioned on page 41 would be established to safeguard already vulnerable stakeholders from some of the pitfalls of micro-credit schemes such as over indebtedness, inherent vulnerabilities due to current and forecasted climate shocks coupled by lack of business skills and training? 3. In addition, how would low interest rates be afforded to the borrowers and how would gender disparities be addressed in these schemes?	encourage enterprise owners to register for membership and thereby enjoy low interest rates. Micro-credit institutions can also be capacitated on resource mobilization strategies that may allow them to charge lower interest rates. More women are engaged in enterprise/small business activities including retail, agriculture and cottage industries as a way of creating livelihoods for their households. Based on this, micro-credit providers in Lesotho are well-disposed to target women, to assist them to start or expand their businesses. The issue has been the lack of access to financial services and micro credit in the project's areas, which the project will facilitate. Additional clarifying text has been added to the discussion of output 3.1.3 on page 44, as well as to section II.I on page 69.
	4. Is the project / program aligned with AF's results framework?	**Not cleared.** **CAR9:** Please amend Table IIIF so that the fund outcome indicators and the related grant amount are separated. E.g. Under Component 1, 3 fund outcomes associated with three outcome indicators are lumped	**CAR9:** Table IIIF has been amended so that the fund outcome indicators and the related grant amount are separated throughout the table.

		together. Please separate out the grant implication for each of the outcome indicators in the grant total column. This means that the $2,332,754 should be divided to allocate to each outcome indicator. This approach should be replicated throughout the table.	
	5. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	**Yes.** The project provides an adequate description of social, economic, environmental, financial and institutional sustainability measures. As per information included on page 65 and in annex 12 on the project's social, economic, environmental, financial and institutional sustainability measures.	**N/A**
	6. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	**Not cleared.** **CAR10:** 1. The two executing entities are government ministries. Under the principle "compliance with the law" could you please clarify what legal frameworks are exemptions for the project proponent related to project activities for which the executing entities would need to comply with?	**CAR10:** 1. WFP, as an autonomous joint subsidiary programme of the United Nations and the Food and Agriculture Organization of the UN, operates under a particular legal framework, enjoying privileges and immunities under Article 105 of the Charter of the United Nations as well as the Convention on the Privileges and Immunities of the United Nations and the Convention on the Privileges and Immunities of Specialized Agencies. Under these instruments, WFP is granted immunity from every form of legal process of its member states in order to ensure that WFP can carry out its mandate globally with independence and in accordance with the humanitarian principles,

		2. Under the principle on Human Rights, Lesotho may not be a signatory to the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa; the Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms; the Convention against Discrimination in Education; and the Employment Policy Convention which could be relevant to the project. Clarification on the risk relevance of these or other similar instruments would be useful. 3. Under the principle on Conservation of Biological Diversity, please clarify how planned activities such livestock farming, gully reclamation and land rehabilitation, wetland rehabilitation, fish farming, sand dam construction and others mentioned in the project have inherent risks to biodiversity that need assessing and should be mitigated as relevant, e.g., risk of	including operational independence, impartiality, and neutrality. WFP also enjoys, among others, privileges and immunities in respect of taxation, financial transactions, and import and export controls. However, WFP's privileges and immunities do not generally extend to WFP's non-UN implementing partners and vendors. Accordingly, such entities are required to comply with all laws, ordinances, rules, and regulations bearing upon the performance of obligations under agreements with WFP. In Lesotho, WFP is only exempted from complying with the Value Added Tax Act, 2001 Act 9 of 2001; Income Tax Order, 1993 Ordinance 9 of 1993 etc. However, the EEs and cooperating partners (CPs) are required by WFP partner identification and due diligence procedures to comply with applicable regulations. As such the project will comply with all national laws. This clarifying text has been added to section II.K, page 72, as well as to Annex 7, page 171 (footnote). 2. Lesotho ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa on 7 March 1984. The WFP AAP, Gender and Protection policies and frameworks as well as established implementation approaches will be applied and promoted in the project to support human rights and gender equality in all project activities. These processes by WFP align with the provisions of the Protocol. The Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms is not applicable to Lesotho as this is a European Union Protocol.

		disease outbreak, water pollution and habitat loss due to increased livestock density which could affect wild animal populations; risk of alien species introduction through manure; risk of soil erosion and altered hydrological patterns etc. 4. In addition, the presence of alien invasive species is captured as an environmental risk on page 77 which suggests that this could be an issue when land and riverine habitat disturbance occurs. Please clarify how this risk will be mitigated.	The Convention against Discrimination in Education is applicable to Lesotho as a former Territory of the United Kingdom of Great Britain and Northen Ireland. Relevance may be associated with the school-based, teacher and learner trainings in Component 2 of the project. Lesotho is a member of the Southern African Development Community which all member states have ratified or ascended to the Protocol on Education and Training, which ascribes to equitable, free and fair education.[3] Lesotho is member to the International Labour Originations and has ascended to other relevant ILO protocols and conventions such as those that address child labour, health and safety etc.; however, the country has not ratified the Employment Policy Convention. The country's constitution as well as the existence of the Labour Act addresses the Philadelphia Declaration and the Employment Policy Convention provisions such as the right to employment. This clarifying text has been added to section II.K, page 73, as well as to Annex 7, page 173 (footnote). 3. Gully reclamation, land rehabilitation and wetland protection as implemented in the Lesotho IACoV context are not considered to have inherent risks to biodiversity, as these activities are implemented to enhance the functioning of Lesotho's degraded ecosystems and the associated biodiversity. The process of gully

[3] https://www.sadc.int/sites/default/files/2021-08/Protocol_on_Education__Training1997.pdf

			reclamation and land rehabilitation is implemented in the following way to minimize disturbance to native species: (i) Utilization of plant species that are native or well-adapted to the local environment to stabilize soil and reduce the impact of erosion on surrounding habitats; (ii) Actively removing or controlling invasive species that threaten the local flora and fauna to allow native species to thrive; and (iii) Promoting practices such as crop rotation, agroforestry, and minimal tillage to reduce the impact on soil health and provide habitat for local wildlife. For wetland rehabilitation, this is achieved through protection of wetlands, which allows the natural ecosystem and indigenous species to regenerate. By preventing encroachment and re-establishing natural water flow, native plant and animal species can recover and thrive, ensuring the long-term sustainability of these vital ecosystems. As stated in the text on page 74, land rehabilitation interventions will ensure that buffer zones for springs, wetlands, bogs/mires rivers, and gullies will be observed during project activities to restore ecosystem functions that will lead to enhanced biodiversity. The process used for this is to carefully delineate and protect these sensitive areas from disturbances, implement appropriate vegetation restoration using native plant species, and control soil erosion through sustainable land management techniques. Additionally, regular monitoring and adaptive management will be carried out to ensure that these ecosystems are recovering, and that biodiversity is being effectively supported throughout the rehabilitation process.

			Indigenous plants will be relocated from intervention sites where they could be negatively impacted. Regulations on Biosafety will be finalised during the project term and the project activities will be fine-tuned to comply with this. Regarding livestock farming, only locally appropriate indigenous species will be promoted and sensitisation will be conducted prior to any project activities on the dangers of overstocking, to avoid habitat loss due to increased livestock density which could affect wild animal populations. In the new district of Thaba Tseka, there will be a particular emphasis on revitalising and implementing grazing and rangeland management systems, in collaboration with the traditional authorities and local government officials. Sensitisation of herders and livestock owners will be conducted using SBCC methods to make them aware of the importance of avoiding overstocking and overgrazing. In the three southern districts under IACoV phase I, significant strides have already been made in terms of grazing management, including formation of range management associations, the implementation of rotational grazing systems, the creation of fire belts and the establishment of grazing zones to prevent overuse of specific areas. These efforts have contributed to improved rangeland health and biodiversity conservation. These successful practices can be replicated in Thaba Tseka, building on the knowledge gained and ensuring that herders and livestock owners are fully engaged and committed to sustainable grazing practices across all districts.

			The livestock activities could lead to an increased use of ground or surface water. However, as stated in Annex 7, the intention is to restore ecosystem functions and catchment management services before implementing activities that rely on the water. The respective assessments will be undertaken by the DRWS prior to implementation for consideration by the PMU and applicable supporting technical expert, under the overall regulation of the MEF. Water abstraction rates determined by the MEF will be adhered to, to ensure that there is adequate streamflow for ecological purposes and to not negatively affect downstream users. Regarding fish farming, as stated in the screening tool in Annex 7, only small fishponds (with maximum dimensions of 10mX10m, with a depth of 3m) would be considered as potential adaptation option during the CBPP process. Which could form part of integrated community action plans. While such small-scale fishponds are expected to have only limited environmental and social impacts, cumulative impacts will also be considered. Potential risks, depending on the exact location, are related to the quantity of water that will be diverted from rivers to service the fishponds and possible impacts of the discharged water on water quality. As noted under the 'Public Health' principle, normally the fishponds for fish farming or other ponds could facilitate the growth of vectors like mosquitoes. However, there is no transmission of malaria or other vector-borne diseases in Lesotho. During the screening of USPs, cumulative and indirect impacts will be assessed and appropriate mitigation measures designed in consultation with

			the experts from the DoE and the Department of Fisheries. Possible mitigation measures that can be included are implementation of erosion control practices around fishponds to prevent soil runoff into nearby watercourses, which can degrade water quality. Local communities will be sensitized on and engaged in sustainable fish farming practices, including responsible water management and monitoring of water quality to reduce potential environmental risks. Sand dams are environmentally positive interventions that are particularly suited to the Lesotho conditions. They are a powerful near-term intercession for restoring hydraulic conditions in Lesotho's degraded watersheds. Sand dams are located in ephemeral stream beds at an optimal location where the stone masonry wall will retain the most sand, for the least height of wall. In Lesotho they can be built on solid base rock which is found along the bottom of most water courses and provides a solid foundation. Sand dams located at optimal points retain a huge volume of sand, which acts as a wick over a significant area for ground water recharge and retention, with the sand holding 30% of volume as water. Surface tension and capillary movement of water to below ground aquifers follows. The sand filters the water and reduces evaporative losses. The sand dams are constructed using sand, stones, rocks and boulders, and a modest amount of Portland cement. No steel reinforcing is necessary. Please see the detailed text on page 169, which includes the restrictions on size of the sand dams.

			As noted in the proposal, USPs will be screened before their approval to assess the actual risk category of each activity, taking into consideration the location and the social and environmental context. Should a moderate be identified, the project will take adequate measures to address and mitigate the risk. Should a high risk be identified, the sub-project will be redesigned with community members and technical experts to reduce the risk level to no higher than Category B. A detailed description of the Environmental and Social Management Plan for this proposal is included in Annex 7. 4. The alien invasive species that are present in some villages which could potentially undermine the intentions of the land rehabilitation activities are primarily alien trees such as pine that have been planted in woodlots, as well as Chrysocoma, a fast-growing invasive plant in Lesotho that competes with native vegetation, reducing biodiversity and impairing soil health by altering nutrient cycles. To prevent the further spread of Chrysocoma, project activities will include engagement of community members to actively remove it in and around the villages to reduce their spread and competition with native plants. Sensitive areas will be delineated and protected from disturbances, to prevent the spread of alien invasive species into them. Appropriate vegetation restoration using native plant species will be carried out. Beyond the boundaries of the villages, the project will assist in the eradication of alien invasive species such as rosehip from the rangelands. The use and presence of alien invasive species such as

			prickly pear, pine, wattle, rosehip and blue gum in Lesotho's farming and woodlot production activities pre-exists project implementation; such plants will not be distributed to new areas. Prior to the provision of any trees under phase II, a climate- and ES-risk informed tree suitability study will be conducted (activity 3.1.1.g.) to inform all subsequent project activities as well as the ongoing advisory work of the MoEF. The project will support trials of the Miyawaki afforestation technique for micro-scale indigenous forests. Invasive species will not be introduced during the fish farming activities, should the fishponds option be chosen during the CBPP. Regular monitoring and adaptive management will ensure that biodiversity is being effectively supported and the spread of alien invasive species is prevented. Additional text clarifying points 3 and 4 above has been added to pages 74 and 83-84 (respectively) of the proposal. Some of this text was already to be found in Annex 7; any new text has been added to that annex on pages 177-178.
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	**Yes.**	**N/A**
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	**Yes.**	**N/A**
	3. Are the Project/Programme	**Yes.**	**N/A**

	Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?		
Eligibility of IE	1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	**Yes.** WFP is a Board accredited implementing entity.	**N/A**
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	**Yes.**	**N/A**
	2. Are there measures for financial and project/programme risk management?	**Yes.**	**N/A**

	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	**Not cleared.** **CAR10.** After addressing the issue of identification of project activities and USPs mentioned at CAR1, the ESMP should be revised. **CR9:** The grievance handling mechanism should consider expanding grievance submission channels to include email, handwritten, establishing an online portal, and third-party options such as encouraging community leaders to collect and forward complaints. **CAR11:** The ESMP mentions that the budget for ESMP is included under components 2 and 3. However, the budget notes in the detailed do not have any description or reference to monitoring and evaluation arrangements for ESP compliance. Please provide clarification on this. **CAR12:** There is no clear description of the arrangements for the IE to supervise executing entities for implementation of ESMP and what the arrangements for its adaptive management will be, including indicative timelines.	**CAR10.** The rationale for the USPs, in terms of the process of further identifying localities during project inception and identification of activities through the CBPP process in the 18 project sites has been clarified above under the response to **CAR1**. The process for screening for USPs has been clarified as on pages 179-180 of the proposal, in Annex 7. In addition, a sentence on USP screening has been added to section II.K on page 72. **CR9:** These suggestions for expanding grievance submission channels to include email, online portal and third party options via community leaders have been taken up. Handwritten submissions are already possible via the Help Desk and direct reporting to WFP /IACoV or executing entity offices. Additional text has been added to Annex 8, page 188. **CAR11:** An amount of USD 16,350 is included under activity 3.1.1.i, for workshops, meetings and field visits for ESS and for implementation of the ESMP. This amount will be supplemented by additional budget within the overall M&E budget, to provide sufficient budget for monitoring ESMP compliance. This clarifying note has been added to section III.C, page 83. Arrangements for IE supervision of executing entities for implementation of ESMP are set out in section III.A, page 83. The budget notes have been amended to clarify that the M&E budget will include additional budget for monitoring compliance with the ESMP, in addition to that provided under activity 3.1.1.i..

		Please include this description under implementation arrangements (Part III of the project template). Also please clarify the M&E arrangements for ESP compliance.	**CAR12:** WFP as the IE is tasked with overall responsibility for ensuring that the project ESMP is implemented, and for its adaptive management. This includes ensuring that the USPs are adequately screened. The detailed process for screening the USPs after the CBPP is conducted in the 18 community councils is set out in Annex 7. While the screening will be led by the Department of Environment (DoE) in the MEF, WFP experts from the CO and the RBJ will provide technical support and oversight of this process. The outcomes of the identification and ES screening of USPs will be conducted at the beginning of project implementation and documented in the annual Project Performance Reports. While the screening of ES impacts is led by the DoE, the implementation of activities related to natural resource management and livelihoods is carried out by the technical departments in both the MEF and the MAFSN. Monitoring of the ESMP for the identified activities will be conducted by the planning units within both MEF and MAFSN, in collaboration with the M&E Officer in the Project Management Unit (PMU). WFP, as the IE, will provide technical support and oversight, through technical experts at the CO and the RBJ, to ensure that the screening processes and adaptive management and implementation of the ESMP comply with the Environmental and Social Policy and the Gender Policy of the AF, as well as with applicable WFP and GoL policies. This paragraph has been added to the Implementation Arrangements section, page 76.

	4. Is a budget on the Implementing Entity Management Fee use included?	No. **CAR5:** Please include a breakdown of the Implementing Entity Management Fee.	**CAR5: A** breakdown of the Implementing Entity Management Fee has been included in the budget.
	5. Is an explanation and a breakdown of the execution costs included?	**Yes.** As per table on page 96.	**N/A**

	6. Is a detailed budget including budget notes included?	**Yes.** As per tables on pages 89-96. However, amendments are required. **CR10:** Please review *the entire budget* for amending any calculation errors e.g. 1. under 1.1.2f Project Staff total figure should be $75, 625 not 60,500 as represented in the table.2. 2. Relatedly, output 1.1.1 total under year 1 is $115,413 and not 100,288 as presented in the table. Such errors affect the component totals and therefore the overall budget total. Any resultant changes impacting Project Components and Financing table as well as other tables with project amounts should be amended including re-calculation of fees if required. **CAR13:** Please amend the budget notes to more clearly describe the activities, the # of persons targeted, better description of the activities e.g. Also please ensure adequate resources for gender responsive implementation.	**CR10:** The entire budget has been checked for any calculation errors. The only error found was that under output 1.1.2.f, as mentioned. This error has been corrected. Only minor changes were needed to project component budgets, namely a slight reduction to the budget for activity 1.1.2.a., which concerns engaging an international consultant / institution to map relevant stakeholders towards developing impact-based forecasting (IBF). The amended budget is considered adequate for the allocated task. The budget total for each of the outputs remains the same as originally provided; hence there was no need to make any further adjustments to budget figures or fees. **CAR13:** The budget notes have been amended to more clearly describe the activities, the number of persons targeted, and to provide additional clarity wherever possible, as well as consistency with the project results framework where applicable. The wording for the project outputs has been added to the budget table to provide greater clarity. Adequate resources for gender responsive implementation are included in the budget, through a number of different budget lines, including: (i) Budget (under the three components) to cover 40 percent of the salary of the WFP Lesotho CO Gender and Nutrition focal point, who will provide the gender, protection and nutrition oversight role necessary for the delivery of the components; (ii) Resources to commission a national gender and nutrition expert for regular short-term consultancy services, under the supervision

				of the WFP Lesotho CO Gender and Nutrition focal point – this is also included under each of the 3 components as it is necessary for their delivery; (iii) Dedicated budget for adopting and operationalising the climate change / food security / gender / nutrition nexus (CC-FS-GEN-NUT) as a central organizing concept (in response to the findings of the project community consultations and gender assessment), including to develop CC/FS/GEN/NUT nexus materials (Activity 2.2.1.a); develop and disseminate case studies, policy brief, and communications materials, including on CC/FS/GEN/NUT (Activity 2.3.1.e); resources to conduct regular AA lessons learning and refresher training sessions that integrate the CC/FS/GEN/NUT nexus at district and national level (Activity 1.2.1.b); resources to update the NCCCS, integrating key inputs and lessons learned, including CC/FS/GEN/NUT (Activity 2.1.1.a) and to hold annual refresher training on CC/FS/GEN/NUT for IACoV stakeholders in the project districts (Activity 2.1.1.e); resources to incentivise innovative approaches to awareness raising on the CC/FS/GEN/NUT through competitions, debates, etc. (Activity 2.1.1.h) and to deepen media engagement and ongoing capacity strengthening on CC/FS/GEN/NUT (Activity 2.1.1.i); dedicated budget to conduct policy advocacy on key lessons including CC/FS/GEN/NUT integration (Activity 2.3.1.f), amongst other activities.

			(iv) Moreover, as stated on page 34, each CBPP process will include detailed sensitisation on the CC/FS/GEN/NUT nexus, which will include SBCC on GBV and climate change links. This community mobilization activity will enable meaningful integration of gender, nutrition, protection and inclusion priorities. Gender responsive implementation will be further assured through the ToTT of GoL staff on CBPP (activity 3.1.1.a.), which will include detailed sensitisation on the CC/FS/GEN/NUT nexus, as well as SBCC on GBV and climate change links. A summary sentence on these additional resources for gender responsive implementation has been added to page 77 of the proposal.
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	**Yes.** Arrangements are adequately described and budgeted for on page 96.	**N/A**

	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	**Yes.** As per information on page 79.	**N/A**

	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	**Not cleared.** **CAR14:** The core indicator table presented in the proposal is well noted. Please utilize the core indicator templates available at Methodologies for reporting Adaptation Fund core impact indicators . Please also note that the template should also be completed for core indicator 3 "Assets Produced, Developed, Improved, or Strengthened". **CR11:** Since the proposal identifies the project as a scale up project please clarify why the baseline information is classified as 'TBD' or '0'.	**CAR14:** The AF the core indicator templates at the provided link have been utilised in the proposal as far as possible. These will be updated after the baseline is conducted and utilised to report to the AF on project results. AF core indicator 3 "Assets Produced, Developed, Improved, or Strengthened" has been added to the core indicator table. We have also included AF Core Impact Indicator 5 "Natural Assets Protected or Rehabilitated" to the table. **CR11:** Since some project areas and beneficiaries are the same as for phase 1, while others are different – in Thaba Tseka as well as in the 3 southern districts – it is not possible to provide an overall baseline. Therefore, this will be developed during the baseline study, which will be completed in year 1 of IACoV phase II as per the AF Evaluation Policy. This will be integrated into the project results framework. The baseline study and the updated project results framework, including the AF Core Indicators, will be shared with the AF at the end of year 1. Nevertheless, the project results framework does include baseline values for many indicators (in the column headed 'Baseline', as well as targets, which are set out in the column with the heading 'Target'. Where an area or an activity is new, the project baseline is '0'. Where the activity involves a mix of beneficiaries/areas from phase I and those that will be new to phase II, the baseline is 'TBD'. In some cases, the target is also set as 'TBD', as this depends on the localities selected during project

			inception, as well as self-selection of interested beneficiaries. An explanatory footnote has been added to the project results framework on page 87.
	10. Is a disbursement schedule with time-bound milestones included?	**Yes.** As per disbursement schedule on page 96.	**N/A**

ADAPTATION FUND

FULLY DEVELOPED PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project:	Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho Phase II (IACoV-2)
Country:	Lesotho
Thematic Focal Area:	Food security
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	World Food Programme
Executing Entities:	Ministry of Environment and Forestry, Ministry of Agriculture, Food Security and Nutrition
Amount of Financing Requested:	10,000,000 (in U.S Dollars Equivalent)
Letter of Endorsement (LOE) signed:	Yes ☒ No ☐

NOTE: The LOE should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

☒ This proposal has been submitted before including at a different stage (concept, fully-developed proposal)

☐ This is the first submission ever of the proposal at any stage

In case of a resubmission, please indicate the last submission date: 10/22/2024

Please note that fully-developed proposal documents should not exceed 100 pages for the main document, and 100 pages for the annexes.

I.A. Project Background and Context

Summary of problem statement and proposed solution

The proposed project, 'Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho Phase II' (IACoV-2), will implement an integrated set of interventions to address Lesotho's predominant climate risks of increased temperature, erratic rainfall, drought and cold spells, and its biggest climate change-related environmental problem, which is land degradation. Taken together, these challenges are reducing food and nutrition security amongst climate-vulnerable smallholder farmers. Building on the achievements of IACoV phase I, the project will deepen and scale up activities in the three southern drought-prone districts of Mafeteng, Mohale's Hoek, and Quthing, and will scale out project operations into the mountainous district of Thaba Tseka, which has high levels of vulnerability to recurrent droughts, heat waves, late rains, and disrupted snowfall patterns. The project will strengthen systems to generate climate information and reduce climate risks through more accurate sub-seasonal to seasonal forecasting, impact-based forecasting, scaled out anticipatory action and enhanced last mile climate services. Enhanced climate services will be inputs into deepened gender-responsive awareness raising and communication on climate change impacts and adaptation actions, targeting vulnerable communities, as well as women, youth, scholars, teachers, and non-formal educational institutions. The project will scale up community-based local adaptation actions for robust asset creation and/or rehabilitation, income diversification, entrepreneurial development and stronger market linkages, informed by increased knowledge on climate risks, to result in increased adaptive capacity and household resilience for vulnerable groups.

The multiple-benefit approach of strengthening climate adaptation through ecosystem resilience will be optimised by adopting the climate change / food security / gender / nutrition (CC-FS-GEN-NUT) nexus (**Box 2**) across components. Through the project's landscape-based approaches to ecosystem restoration and risk layering approach, risk reduction activities (in the form of enhanced climate services and early warning-early action, ecosystem regeneration, natural resource management and climate-smart agricultural technologies), are layered with improved access to savings to help households cope with smaller, more frequent shocks (sustainable risk absorption), as well as better access to markets to enable livelihood diversification, and access to microfinance, so farmers can further invest in developing climate resilient livelihoods (prudent risk taking). In this way, the project will support vulnerable smallholder farmers to generate increased and climate-risk-informed production and obtain more income, to enhance their adaptive capacity.

Map 1. Location map of Lesotho showing project districts

Location and climate

Located in the south-eastern part of southern Africa, the landlocked and mountainous Kingdom of Lesotho has a total land surface area of 30,355 km² and is geographically surrounded by the Republic of South Africa. The country has rugged terrain with elevations ranging from 1,388 metres to 3,482 metres above sea level (masl); the altitude confers some alpine characteristics to the temperate climate. Winters are dry and cold and summers are hot and humid, with highly variable temperatures on diurnal, monthly and annual time scales. Monthly winter minimum temperatures range from -6.3°C in the lowlands to 5.1°C in the highlands, while monthly mean winter minimum temperatures can reach -10.7°C, and daily winter minimum temperatures can drop as low as -21°C, with sub-zero daily minimum temperatures possible even in summer both in the lowlands and the highlands.[1] Some highland areas may experience ground frost for

[1] Lesotho Meteorological Services, 2018. Ministry of Energy and Meteorology.

up to 200 days per year. Annual precipitation ranges from 500 mm in the Senqu River Valley area to 1,200 mm in a few localities in the northern and eastern escarpment; 85 percent of precipitation occurs between October and April, while the peak rainfall period is from December to February.[2]

Environmental and agro-ecological conditions

Four distinct geographical zones are characterized by significant climatic and agro-ecological differences. The lowlands (17 percent), foothills (15 percent), and Senqu River valley (9 percent) include those areas of the country with more favourable agricultural conditions; however, only 9 percent of Lesotho's land is arable.[3] The rugged mountainous areas (59 percent) are suitable for livestock grazing and water resources development. Lesotho has fragile ecosystems arising from its topography, type and pattern of rainfall, fragility and erodibility of soils, land use patterns, and habitats such as bogs and sponges.[4] The rich biodiversity consists primarily of unique habitats, specifically wetlands and sandstone cliffs with high species endemism. About 70 percent of the Drakensberg Alpine Centre (DAC) globally recognised biodiversity hot-spot is located in the Drakensberg-Maloti Mountains.[5]

Pervasive land degradation is characterised by rainwater-induced gully, rill, and sheet erosion. Soil erosion and desertification have been aggravated by recurrent droughts, rapid population growth and increasing pressure on natural resources, as well as unsustainable land and natural resource management practices. Overstocking on the highland rangelands leads to loss of ground cover and excessive water runoff during storms, leading to flash flooding and sheet and gully erosion, as well as reduced biodiversity through habitat loss for wild species. Overgrazing, unsustainable harvesting (particularly of medicinal plants), uncontrolled fires, urban and agricultural encroachment, invasive alien species and pollution also threaten biodiversity.[6]

Socio-economic characteristics and vulnerabilities

Population, economy and poverty

Lesotho is a lower-middle-income country with high rates of poverty, income inequality, and unemployment, and with notable gender gaps across these indicators.[7] In 2022 the country had a total population of 2,305,825[8] of whom 49.5 percent are male and 50.5 percent are female[9]. The youthful population has a median age of 24 years and includes 51 percent youth between the age of 15 to 30 years. Average life expectancy at birth is 52 years for males and 58 years for females.[10] Approximately 70 percent of the population resides in rural areas; the urban population is estimated to rise to 34 percent by 2030 and 46 percent by 2050.[11] About 45 percent of people has access to electricity (2019 figure); most people in rural and peri-urban areas use biomass for their energy needs. Lesotho has one of the highest levels of reported gender-based violence (GBV), with over 86 percent of women having reported experiencing violence in their lifetime.[12]

Poverty and unemployment are high, especially in the rural areas, affecting mostly women and youth.[13] Although the rate has declined since 2010, 49.7 percent of the population still live below the USD1.90 per person per day international poverty line[14], while unemployment is at 22.5 percent (strict definition) and 38.3 percent (expanded definition). The country is one of the most unequal in the world, with a Gini coefficient of 0.44.[15] Lesotho has amongst the highest literacy rates in the region, with 85 percent of men and 97 percent of women being literate and a near-universal primary school enrolment of 97.2 percent, although there are significant urban and rural discrepancies in enrolment and in the quality of education all round.[16] Over 80 percent of poor households benefit from social protection programmes[17], including national school feeding, child grants, old age pensions, disability grants, and public works and food security programmes.[18]

Lesotho's nominal GDP per capita was USD1,045 in 2022, with a public debt stock of 57.5 percent of GDP in 2023.[19] The economy expanded by 2 percent in 2023, mainly driven by the public sector and construction, especially the Lesotho Highlands Water Project-II and its spillover effects on transportation, logistics, and financial services. However, the economy is still highly dependent on government for economic activities and fiscal revenues, with low investment in key areas and low productive capacity.[20] Weaknesses in public investment management and efforts to control spending are delaying capital projects;[21] thus GDP has declined steadily since 2015.

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[2] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[3] Lesotho Vulnerability Assessment Committee, 2016: Market Assessment Report.
[4] World Bank (2021) Climate Risk Profile: Lesotho 2021. The World Bank Group.
[5] Carbutt and Edwards, 2004.
[6] Lesotho Review, 2018 edition. Available at http://www.lesothoreview.com/contents/environmental-conservation/
[7] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[8] https://data.worldbank.org/country/lesotho accessed 22/05/2024.
[9] https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=LS
[10] UN Common Country Assessment
[11] Lesotho: a diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
12 AD546: In Lesotho, gender-based violence tops the list of women's-rights issues to be addressed – Afrobarometer
[13] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[14] Lesotho Poverty Mapping Report, 2018
[15] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[16] UN in Lesotho (2023) United Nations Sustainable Development Cooperation Framework 2024 – 2028.
[17] IMF African Department, "Toward Poverty and Inequality Reduction: The Role of Social Programs".
[18]Government of Lesotho. 2023. Old Age Pension. Disability Grant. Public Works Programme. Food Security Programme. Maseru.
[19] https://www.worldbank.org/en/country/lesotho accessed 12/06/2024.
[20] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28
[21] World Bank Lesotho overview, accessed 05/06/2024 at https://www.worldbank.org/en/country/lesotho/overview

While agriculture now contributes less than 5 percent of GDP, it occupies approximately 78 percent of productive land area and engages around 40 percent of the economically active population, of whom 57 percent are women.[22] The sub-sector was expected to grow by 1.5 percent in 2023 as a decline in the production of crops weighed down positive contributions from livestock farming. Despite timely onset of rains, crop production was projected to decline by 2.1 percent due to high cost of inputs amidst supply chain disruptions. Traditional low-input, low-output rain-fed cereal production and extensive animal grazing systems, dominated by subsistence farmers, are vulnerable to agro-ecological and climatic conditions like land degradation, recurrent cycles of drought, erratic rainfall, hail, and frost.

The economy is deeply integrated with South Africa, which remains the second-largest economy in Sub-Saharan Africa but has significant economic and governance challenges. Multiple and overlapping structural and economic challenges may compromise Lesotho's sustainable development goals (SDGs) and economic growth targets: persistent income inequality, high unemployment and poverty levels, macroeconomic instability and political uncertainty, and limited industrial development which narrows the country's economic base.[23] The private sector is highly informal, with many micro, small and medium sized enterprises (MSMEs); over 50 percent of these operate in agriculture, wholesale and retail sectors. There is scope for innovation and value addition, as 30 percent of MSMEs buy and sell goods in the same form.[24]

Lesotho's Second National Strategic Development Plan (NSDP II) 2018/19–22/23, which has been extended for another five years until 2027/28, specifies four priorities: enhancing inclusive and sustainable economic growth and private sector-led job creation; strengthening human capital; building enabling infrastructure; and strengthening national governance and accountability systems. Environment and climate change are cross-cutting themes, as are promoting gender equality and protecting the interests of children and youth, people with disabilities, the elderly and other disadvantaged groups, including people living in rural settings.

Health, nutrition and food security

Persistent challenges are linked to the need to improve the overall quality of health care, which has gendered outcomes. Lesotho has one of the highest maternal mortality ratios in the world, ranking 170 out of 185 countries.[25] Early childbearing (as early as 15-19 years, with 19 percent of adolescent girls already having their first child) is driven by poverty and food insecurity that pushes many young women into early/forced marriage or intergenerational relationships, especially in rural areas. Children born to adolescents are more likely to have low birth weight, stunting, or wasting, indicating a need for improved maternal nutrition. Malnutrition remains a critical factor in infant and child mortality, with a 34 percent stunting rate and 33.5 percent anaemia among pregnant women[26], particularly adolescents (20 percent of this demographic), and 27.9 percent prevalence in women of reproductive age.[27] By 2024, stunting amongst children under five had increased to 36%.[28] This is exacerbated by inadequate infant and young child feeding (IYCF) practices which are inclusive of poor diet diversity. The prevalence rate of HIV is particularly high amongst adults at 22.7 percent and is feminized in Lesotho, with prevalence rates of 27 percent and 18 percent among young women and young men respectively. People with disabilities continue to receive unequal access to social services and economic opportunities.[29] Lesotho largely operates under a food deficit and relies on South Africa for a substantial portion of its internal market supply – around 70 percent in a good year.[30] Many rural smallholder farmers are already climate vulnerable, and the underperforming agricultural sector, with related food insecurity, exacerbates their vulnerability and increases the risk that they may fall into poverty; this further contributes towards high levels of emigration from Lesotho.

Climate change vulnerabilities, impacts and risks

Climate trends and projections

Observed trends

There has been a notable increase in average annual temperature in both lowland and highland regions in Lesotho over the past few decades.[31] Since 1960, the mean annual temperature increased by 0.76°C, with an average rate of increase of 0.20°C per decade. Both annual maximum and minimum temperatures increased between 1970 and 2005 with minimum temperatures warming more than the maximum temperatures and the most rapid warming occurring in the early 1980s.[32]

Precipitation trends have a high degree of interannual variability across southern Africa; however, observations indicate a decrease in annual precipitation for Lesotho. Changes in seasonal rainfall patterns have revealed progressive

[22] Lesotho: a diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
23 United Nations Lesotho Common Country Assessment, 2021.
[24] Finscope 2015
[25] UNICEF 2019
[26] WHO Global targets tracking tool, 2019
[27] Lesotho MICS 2018
[28] Lesotho Demographic and Health Survey, 2024
[29] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[30] Lesotho: a diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
[31] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[32] LMS, 2017. Lesotho's Nationally Determined Contribution under the UNFCCC. Ministry of Energy and Meteorology.

increases in winter season precipitation (June to August), accompanied by an opposite trend in the summer season, in some regions.

Projected changes

Studies carried out for the Third National Communication[33] to the UNFCCC project a warming trend, decreasing precipitation and recurring drought in the short term (2011 to 2040), medium term (2041 to 2070) and long term (2071 to 2100) under two different development scenarios.[34]

Analysis in 2021 on the Climate Change Knowledge Portal indicated that mean monthly temperature changes are expected to increase by more than 2.0°C for the 2050s and by 4.4°C by end of the century, under a global high-emissions scenario. Temperature increases are expected throughout the country, although slightly lower degrees of temperature increases are expected to occur in the mountain zones. Increased incidence of heat waves and higher rates of evapotranspiration are expected, which will affect multiple aspects of local economic development and agricultural productivity.[35]

More recent analysis using CMIP-6 Global Circulation Models (GCMs) showed the range of possible temperature changes for different socio-economic pathways, as indicated in **Figure 1**.

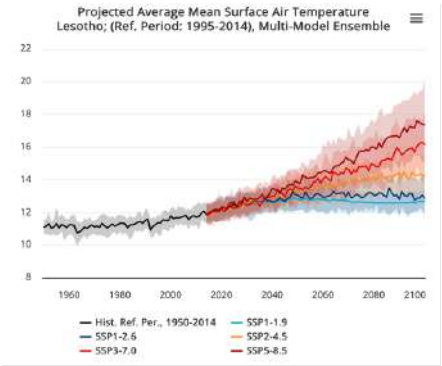

Figure 1. Projected average mean surface air temperature for Lesotho, using CMIP-6[36]

While rainfall in Lesotho is highly variable and regional precipitation trends difficult to discern, northern areas of the country are expected to experience below normal precipitation through mid-century, with slightly above normal rainfall through the end of the century. Southern areas of Lesotho are expected to have below normal rainfall through to the end of the century of between 50 and 100 mm per annum in the Lowland, Foothill, and southern Senqu Valley zones.[37] The mountains in particular show a possibility of much more intensified meteorological drought conditions during the mid-future period, specifically under RCP 4.5.[38]

In summary, the projected climate change scenarios for Lesotho include increasing temperatures, changes in rainfall patterns, decreasing summer precipitation, increasing intensity and frequency of extreme weather events such as drought, heavy rainfall, hailstorms, prolonged mid-season dry spells, and late start and early end of the rainy season.[39] Regional analysis using CMIP-6 substantiates the increasing drought risk, finding that at 1.5°C global warming, the frequency and length of droughts is projected to increase over large parts of southern Africa. At 2°C, unprecedented extreme droughts are projected to emerge. Above 3°C global warming, average annual rainfall is projected to decrease by 10–20 percent in the summer rainfall region, particularly in the western parts. The length of meteorological droughts is also projected to double from 2 to 4 months.[40]

Current and future vulnerabilities, risks and impacts of climate change

Lesotho's geographical characteristics and socio-economic conditions, particularly for its rural population, make it one of the most vulnerable countries to the impacts of climate change; this is exacerbated by the high dependence on rain-fed

[33] The TNC used downscaled data from the CMIP5 (Coupled Model inter-comparison Project Phase 5) GCMs, through the Coordinated Regional Downscaling Experiment (CORDEX) project.
[34] Climate Change Scenario Analysis for Lesotho. Unpublished Work in Progress for the Third National Communication to the UNFCCC. Source: National Resilience Strategic Framework, 2017.
[35] World Bank (2021) Climate Risk Profile: Lesotho 2021. The World Bank Group.
[36] Source: https://climateknowledgeportal.worldbank.org/country/lesotho/climate-data-projections accessed 11/06/2024.
[37] World Bank (2021) Climate Risk Profile: Lesotho 2021. The World Bank Group.
[38] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[39] Studies by the Intergovernmental Panel on Climate Change (IPCC) and Lesotho Meteorological Services (LMS)
[40] CDKN and ACDI (2022) The IPCC's Sixth Assessment Report: Impacts, adaptation options and investment areas for a climate-resilient southern Africa. https://cdkn.org/sites/default/files/2022-03/IPCC%20Regional%20Factsheet_Southern%20Africa_Web.pdf accessed 29/05/2024.

agriculture and reliance on regional, imported energy supplies.[41] Increasing temperatures have resulted in increased evaporation and thus lower soil moisture content. Increased extremes, particularly especially during El Niño years, have resulted in livestock mortality, crop failure, reduced labour efforts, and lower production.

Changes in rainfall patterns have exacerbated the effects of land use change, natural resource management, and governance issues, resulting in significant impacts on water resources: drying out of traditionally perennial springs, reduced flows on major rivers, and many dams currently remaining dry for most of the year.[42] Significant changes in precipitation and temperature could have severe impacts on people's livelihoods, particularly in the Lowlands, the Foothills, and the Senqu Valley, where increasing temperatures and decreasing precipitation might lead to a substantial decrease in crop harvests.[43] Lesotho's high evaporation rate and the near absence of permanent surface water sources in large parts of the country make water a scarce resource. Projections suggest that even without the impacts of climate change, water resources will face significant reduction.[44]

In recent years, climate-driven factors such as prolonged drought, erratic rainfall, and both early and late frost, have combined with and worsened land degradation, a major environmental challenge constraining agricultural productivity and food and nutrition security in Lesotho. High levels of soil erosion lead to loss of limited agricultural land and productive capacity, with an estimated 4.5 million tons of soil lost through soil erosion per year.[45] [46] Soil erosion is projected to increase, with different drivers in the livelihood zones. Thus, during autumn and winter, the near-future projections indicate dry conditions along the Foothills, Senqu River Valley and Mountains, although the signal of change for the Lowlands is inconclusive. A reduction in soil moisture levels reduces the cohesive forces between soil particles, while the presence of little vegetation cover during those periods makes the soil more susceptible to erosion by wind and water. However, in the Lowlands, the projected increase in high-intensity rainfall events in the absence of protective surface cover could accelerate soil erosion and increase river sediment loads.[47]

The country is experiencing increasing extreme events. Lesotho is located in the semi-arid sub-tropical zones and recurring droughts exacerbate the loss of biological diversity, rangeland deterioration, and diminished agricultural and livestock productivity due to desertification. Over recent years, significant reductions have been observed in the productivity of major crops and livestock due to adverse land and rangeland conditions. In 2016, the country experienced an unprecedented El Niño related drought.[48] In 2017/18, the rainfall season was delayed. Unseasonal snowfall, extreme cold temperatures and frost experienced in November 2017 damaged early planted crops. Other parts of the country received localised hailstorms and flash floods in March 2018, which also damaged crops. As a result, 18 percent of the rural population was exposed to starvation and needed humanitarian assistance. A similar scenario repeated in the 2018/19 period.[49]

The lean season is experienced earlier and is prolonged, running from September until March for many households in Lesotho's rural areas. While coping strategies vary across areas and households, these may have gendered dimensions – of example, in Thaba Tseka district, women usually reduce meal frequency from three to two or sometimes one per day. The Integrated Food Security Phase Classification (IPC) found that between July to September 2023, around 245,000 people in rural Lesotho (16 percent of the analysed population) were facing high levels of acute food insecurity - IPC Phase 3 or above (Crisis or worse), related to excessive rains in December 2022 resulting in waterlogging that destroyed some crops in most parts of the country, as well as high food prices, inflation and reduced casual labour opportunities due to heavy rains. It was projected that from October 2023 to March 2024 around 325,000 (22 percent of the population; 52 percent women and 48 percent men) were likely to be in IPC Phase 3 or above (Crisis or worse) with eight districts of Lesotho being classified under IPC Phase 3 (Crisis). Only two of them remained in IPC Phase 2 (Stressed) while the rest of the population analysed shifted to a higher phase. The main hazard under the projected period was El Niño which was likely to affect food utilisation negatively, as well as food access, while food availability would likely remain unaffected as markets continued to be functional and stable.[50] The 2023 / 2024 El Niño is having a particularly severe impact on food security in Lesotho, with 293,000 people (19 percent of the rural population) classified in Crisis or worse for the period May to September 2024 and requiring urgent action to reduce food consumption gaps. During October 2024 to March 2025, about 403,000 people (27 percent of the rural population; 52 percent women and 48 percent men) will face high levels of acute food insecurity (IPC Phase 3 or above), driven by rising food and fuel prices, rising inflation, and reduced sources of income countrywide. The most vulnerable population includes 29,000 people in IPC Phase 4 (Emergency) and 374,000 people in IPC Phase 3 (Crisis).[51]

Going into the future, Lesotho is expected to experience a change in precipitation patterns and temperatures, producing dryer and hotter conditions, with increased intensity and frequency of extreme events such as floods and drought,

[41] https://climateknowledgeportal.worldbank.org/country/lesotho accessed 11/06/2024.
[42] LMS, 2017. Lesotho's Nationally Determined Contribution under the UNFCCC. Ministry of Energy and Meteorology.
[43] World Bank (2021) Climate Risk Profile: Lesotho 2021. The World Bank Group.
[44] Lesotho: A diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
[45] MFRSC 2015. National Action Programme. Report to the United Nations Convention to Combat Desertification
[46] Range Resources Management Policy, 2014.
[47] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[48] Lesotho: El Niño-related Drought - Office of the Resident Coordinator Situation Update No. 5 (as of 17 March 2017)
[49] LMS, 2021. The Kingdom of Lesotho's First Biennial Update Report 2021 to the UNFCCC.
[50] https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156570/?iso3=LSO accessed 12/06/2024.
[51] Lesotho IPC Acute Food Insecurity Analysis, May 2024 – March 2025. Published 8 August 2024.

especially in the western and northern lowlands. Such conditions will continue to negatively affect the water and agriculture sectors, with increased losses from evaporation and decreased groundwater recharge and run-off, and reduced agricultural production resulting in food shortages and lower quality of livestock and related products.[52]

Multi-dimensional and gendered vulnerability and barriers to adaptation

Multi-dimensional and gendered vulnerability

The socio-economic and climatic vulnerabilities discussed above constitute a context of multi-dimensional vulnerability to climate change in Lesotho, operating at different levels. Multidimensional vulnerability as expressed on the Notre Dame Global Adaptation (ND-GAIN) Index[53] is depicted in **Figure 2**.

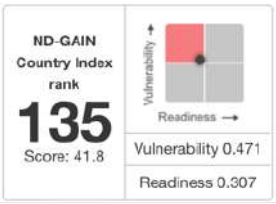

Figure 2. ND-GAIN index ranking for Lesotho

The high vulnerability score and low readiness score of Lesotho places it in the upper-left quadrant of the ND-GAIN matrix. It has both a great need for investment and innovations to improve readiness and a great urgency for action. Lesotho is the 59th most vulnerable country and the 150th most ready country. Particularly vulnerable areas under this index are assessed as agricultural capacity, the rural population, access to drinking and productive water, health issues, lack of adequate road infrastructure, and disaster preparedness.[54] Social readiness, relating to educational status, is considered a major hindrance for readiness. The ND-GAIN index thus further validates the proposed focus areas of IACoV phase II.

Gender inequality compounds the multi-dimensional vulnerability experienced in the country. The Global Gender Gap Index score for Lesotho in 2021 was 0.681, which places it 92nd out of 156 countries in terms of distance to achieving gender parity. This is a drop of more than 80 places since 2010, when it was ranked eighth out of 144 countries with a score of 0.7678. Key factors accounting for the decline are persistent discrimination leading to differences in human endowments, unequal remuneration, low labour force participation of women, low female representation in senior positions and management, and women's limited participation in the political system,[55] as well as the high levels of GBV, with almost half of women murdered in Lesotho being killed by an intimate partner.

As the socio-economic and climate context analysis indicates, a considerable part of Lesotho's population faces persistent food and nutrition insecurity. This is particularly the case for people in rural areas who are reliant on subsistence farming and other non-farm activities. Women are disproportionately represented in the economically vulnerable smallholder farmers' group and consequently have higher vulnerability to the current and future impacts of climate change. Women and vulnerable populations are more dependent on natural resources for survival and sustenance, yet have limited access to these resources due to prevailing inequality in economic, political, and legal influence, which then impacts their ability to cope with the changing climate, further increasing their vulnerability.[56] The high dependence of the rural population on rainfed agriculture and livestock rearing, coupled with the increased frequency of extreme weather like droughts and floods, negatively affects livelihoods, leading to food insecurity. Reduced availability of water due to reduced rainfall and degraded wetlands, puts an additional strain on women and (mainly girl) children needing to walk longer distances, increasing their already high vulnerability to GBV.

Climate change also endangers the health of women and vulnerable groups. Already HIV is feminized in Lesotho with far higher prevalence rates among young women than young men. Climate-related disasters can limit access to health care – for example, access to ARV treatments for people living with HIV and AIDS – and amplify risks to maternal and child health. Extreme heat can increase miscarriages and vector borne diseases.[57] Moreover, multi-dimensional vulnerability to climate change in Lesotho has a strong resonance with nutrition. Limited access to nutritious food is the combined result of low food production, high food prices (especially in the highlands), poverty, and limited employment opportunities. Low food production is, in turn, associated with the increasing prevalence of droughts, floods, early and prolonged frosts, and snowstorms.

[52] https://tech-action.unepccc.org/country/lesotho/ accessed 12/06/2024.
[53] The ND-GAIN Country Index uses 2 decades of data on 45 indicators to rank 181 countries annually based upon their vulnerability and readiness to adapt.
[54] https://gain-new.crc.nd.edu/country/lesotho#vulnerability last accessed 14/08/2024.
[55] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[56] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.
[57] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.

Despite the appropriate legal and national planning framework for promoting gender equality and the empowerment of women and girls, as set out in the Constitution, the NGDP and the NSDP II, insufficient effective implementation leads to gaps in gender equality financing, limited staff awareness and clear articulation of national/sector-specific gender issues in planning, the lack of corporate standards for gender mainstreaming and low capabilities to hold government agencies accountable.[58] Consequently, women's legal status is in effect precarious, their capacity as economic agents is limited, and their rights are not effectively guaranteed.

The findings of the gender assessment conducted for this proposal (see **Annex 6**) indicate that there are anticipated gender differences in vulnerability and adaptive capacity among women and girls, men and boys, in the project areas identified for IACoV phase II. Those most vulnerable to the changes, and most affected by them, are women particularly in poorer households and those with a single woman as head, people with disabilities, pregnant and breastfeeding women, and the elderly; female and male youth who may lack voice and access to land and resources; young girls who are forced into early marriage by food insecurity and poverty exacerbated by climate change, and young boys who become herders or have to take up casual labour at a young age. Girls and boys in the rural areas both suffer from reduced education levels which affects their adaptive capacity, not least in terms of limiting their options for livelihood diversification.

As climate change effects continue to deepen, existing gender inequalities in the proposed project areas will be exacerbated by climate change impacts. The findings of the community consultations (detailed in **Annex 5**) show that the livelihoods of women and girls, men and boys, have already been affected differently by climate change due to culturally established gender roles like the gendered division of labour (both paid and unpaid). Thus, as expected, women and girls are spending increased time travelling to collect both water and firewood in most project villages, which reduces time available for childcare, cultivation of vegetable gardens, educational advancement, and entrepreneurial activity. Girls are being removed from school at an earlier age to enter into arranged marriages, as a coping mechanism, preventing them from gaining the opportunities that education could confer. Many boys are receiving even less education, as they are sent to herd livestock from as young as six years old. This sets them on a trajectory that often leads them to become involved with criminal gangs with high risks to their lives if they join illegal mining operations in South Africa. The consultations also show an increased prevalence of gender-based violence (GBV) linked to increased food insecurity and the hardships and frustrations that engenders, as well as reduced educational levels, that have exacerbated culturally-sanctioned behaviour.

Intersectionality in vulnerability and adaptive capacity: Vulnerable sub-groups in Lesotho experience intersectionality with respect to their climate vulnerability and adaptive capacity. For example, rural poor women suffer from intersecting layers of vulnerability – vulnerability tends to be higher in the rural areas, and women are more adversely discriminated against than men in terms of access to land and by cultural norms that hold that women are not suitable to be leaders, etc.; in addition, poorer women are more vulnerable as they have less resources that could assist them to adapt to climatic changes. Reduced education levels, for example through being forced to leave school at an early age and enter into an intergenerational marriage as a coping mechanism for the household, further exacerbate the vulnerability of rural poor women, especially young women currently, and reduce their adaptive capacity as those who are uneducated may have less knowledge about inexpensive adaptation mechanisms that could reduce their vulnerability. Many boys in rural areas barely attend school, becoming herders from as young as six years, which reduces their development options.

COVID-19 pandemic and political instability: The severe external shock of the COVID-19 global pandemic served to exacerbate inequality, especially between the urban and rural areas, deepen poverty and extreme levels of unemployment and expose the low resilience of Lesotho's health services.[59] The pandemic-induced increase in extreme poverty was particularly felt amongst rural communities whose livelihoods depend on agriculture and migrant remittances, and resulted in unprecedented numbers of food insecure people.[60] Lesotho has experienced periods of political instability and insecurity in recent years, which constrain the ability of state institutions to deliver public services that could serve to increase adaptive capacity and reduce climate vulnerability of community members. The UN Country Common Analysis (CCA) noted that highly unstable coalition governments, political entrepreneurship, the politicization of the civil service and the security forces, fiscal laxity, and an unfavourable enabling environment for the private sector were some of the reasons for the current conditions. The CCA further identified people living in rural areas, the elderly, young people, women, people with disabilities (PwD), migrants, sex workers, LGBTQI persons, refugees, and asylum seekers (who are fleeing conflict and prosecution from neighbouring countries) as having been left behind.[61]

Barriers to adaptation as experienced in the project districts

General barriers to enhancing climate-resilient agricultural livelihoods in Lesotho relate to the major challenges to food security which include low food production owing to limited arable land, climatic shocks such as persistent drought and long dry spells, floods, early frost, and snow; many of these problems are effects of climate change. The key additional

[58] UNDP Lesotho (2022) Gender Audit of the Public Sector in the Kingdom of Lesotho.
[59] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[60] Malinga, W., Chitsamatanga, B.B. (2022). COVID-19 Ramifications in Lesotho: A Poverty Perspective. In: Dorasamy, N. (eds) Governance Challenges During the COVID-19 Pandemic in Africa. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-11244-7_6
[61] UN Country Common Analysis (2023)

barriers to adaptation of relevance for the proposed project areas are described below. Please note that while some differences in barriers to adaptation within the four districts are included below – for example, in the new district of Thaba Tseka, there is a greater distrust of climate advisories related to insufficient support to date, lower access to climate-resilient agricultural extension services related to its relative remoteness, and higher levels of gender inequality – in general, the community consultations revealed a considerable degree of commonality with respect to barriers to adaptation (see **Annex 5**). There is also commonality across the districts in how certain barriers affect certain socio-economic groups more than others. For example, across the districts, older women and men, those who do not have smart phones, and those who cannot keep their phones charged in areas where there is no electricity, are not able or willing to access climate information services on their phones. Women across the project districts lack access to credit and fewer women sell their produce in markets than men, across all four districts.~~the following:~~

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Insufficient awareness, understanding, and actionable weather and climate information : Under IACoV phase I, there has been considerable progress by the GoL in developing more accurate forecasts and advisories through systems development that enhanced the climate data and analysis, introduced the latest forecasting tools, and improved access to the climate products; and in rolling out the anticipatory action for drought in four districts. However, the forecast is not yet sufficiently downscaled to enable climate-risk informed adaptation and targeted last mile climate services. In addition, enhancing awareness takes time and necessitates recurring interventions, thus understanding of climate change amongst all population groups remains limited. In addition, there is a certain degree of distrust of the advisories developed, as these are not suitably localized and targeted to all user sub-groups. This is particularly so in the new district of Thaba Tseka, related to insufficient climate information services provided to date. Moreover, some people are not able or willing to access climate information services on their phones, such as older women and men, those who do not have smart phones, and those who cannot keep their phones charged in areas where there is no electricity and they need to pay to charge their phones at their neighbours' solar panel. There is as yet no on-the-ground corps of disseminators for last mile climate services as well as limited capabilities and human resources in the GoL to further develop the existing climate services products into localised agromet advisories. LMS capabilities to develop impact-based forecasting, which would help to provide actionable warnings, are insufficiently developed.

Limited and gendered access to climate-resilient agricultural extension services: Despite many interventions to support vulnerable communities to enhance their adaptive capacity through climate-resilient approaches and technologies, there is still insufficient coverage in the project districts; reasons for this include vacant extension posts, the *ad hoc* nature of training under projects, and insufficient up-to-date knowledge of climate-smart agriculture (CSA) in the extension services. In the IACoV II project areas, men, women, and youth have received various forms of support and training from different organizations; for example, government departments such as Ministry of Environment and Forestry (MEF) have provided training on range management, while Ministry of Agriculture, Food Security and Nutrition (MAFSN) has provided extension services and subsidized fertilizer for agricultural use. Capacity development on CSA provided by the GoL through IACoV phase I in the three southern districts has been highly valued and has led to increased production and income; however, the training has been too episodic to ensure sustained results. More regular training by extension staff and community members was requested to allow the new approaches to be fully internalised and to optimise benefits from them. In some parts of Thaba Tseka (not served by IACoV phase I), villagers had only seen agricultural extension officers once in 10 years. Moreover, limited access to water for irrigation and agricultural tools contributes to low agricultural production. Service providers are challenged with inadequate skills and limited transport to support their communities. Scarcity of cooking ingredients for food preparation hinders healthy food demonstrations. These barriers to adaptation are unequal in gender terms: only 37 percent of women farmers have access to extension services, compared to 53 percent of men farmers (2018 figures). Similarly, only 20 percent of women farmers have access to credit, compared to 30 percent of men farmers; and most women farmers sell their produce directly, with only 10 percent selling their produce in markets, compared to 15 percent of men farmers.[62]

Limited support for an integrated approach to climate-resilient development: The GoL has placed great emphasis on improving nutrition outcomes and also on promoting CSA as mentioned above; however, this has not always been conducted in a sufficiently joined-up manner across the sectors. For example, child undernutrition remains a significant challenge[63] and malnutrition is driven by poverty, lack of diverse and nutritious diet, and low agricultural productivity, all of which are exacerbated by climate change. However, addressing these drivers is hampered by limited prioritization of nutrition issues by government agencies, as well as limited capacity and commitment of local government units in delivery of nutrition interventions. [64] Thus there is a need to promote greater convergence in efforts of all stakeholders to addressing the central climate change – gender – food security – nutrition nexus that affects the lives of so many rural people in Lesotho. Such an approach would place nutrition and gender issues at the centre of efforts to enhance food security through adaptation to climate change.

Insufficient development of agricultural value chains: Agricultural value chains in the project districts~~Lesotho~~ are fragmented and disjointed. The primary drivers of this are themselves barriers to adaptation: limited access to agro-inputs and livestock materials, excessive susceptibility to unpredictable weather patterns, overreliance on rainfall,

[62] Lesotho Integrated Household Survey (LIHS) 2018
[63] Kingdom of Lesotho, "The Social and Economic Impact of Child Undernutrition on Lesotho Vision 2020".
[64] Lesotho Fill the Nutrient Gap report

inadequate irrigation resources, insufficient knowledge regarding high-value products, limited exposure to high-yield practices, fragile market linkages, and inefficient supply chain mechanisms.[65]

Cultural norms and practices that maintain gender inequality and limit women's adaptive capacity: Despite progress towards gender equality in the legal framework, customary law, which previously governed inheritance, property rights, marriage, and other factors is believed to have contributed to inequalities in the project districts. This is particularly so for women and girls in the project districts who often have limited access to education and economic opportunities and are underrepresented in leadership roles both at community and higher governance levels. Gender inequality appears to be higher in Thaba Tseka, which is likely to be related to the higher poverty rate and more prevalent cultural norms that limit women's adaptive capacity. Most rural women have limited decision-making power within their households and communities which affects their ability to make informed choices about their own lives and those of their children. Traditional practices discriminate against women and girls' inheritance rights, including access to ancestral lands. Poorer women are more vulnerable as they have less resources that could assist them to adapt to climatic changes. The high levels of GBV represent a barrier to women's empowerment and national economic development, while also reducing women's adaptive capacity. Despite elevated vulnerabilities, women are powerful agents of change and continue to make increasing and significant contributions to sustainable development, despite existing structural and sociocultural barriers.

I.B. Project Objectives

The project's main **goal** is to enhance the adaptive capacity of vulnerable and food insecure households and communities to the impacts of climate change on food security. This will be achieved by pursuing the following **three objectives**:

I. **Strengthening institutional capacity and building systems to generate climate information and reduce climate risks** through more accurate sub-seasonal to seasonal forecasting and impact-based forecasting that enables scaled out anticipatory action and enhanced gender-responsive last mile climate services;

II. **Deepening gender-responsive awareness raising and communication on climate change impacts and adaptation actions, centred on the climate change – food security – gender – nutrition nexus**, through an iterative and systematic process targeting vulnerable communities, women, youth, scholars, teachers, and non-formal educational institutions; and

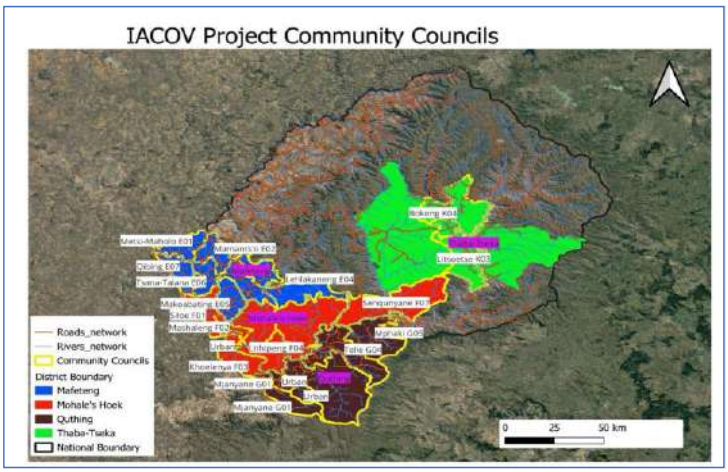
III. **Scaling up and out local adaptation actions for robust asset creation, income diversification, entrepreneurial development and stronger market linkages**, enabled by a community-based planning process, for increased adaptive capacity and household resilience.

The project will meet these objectives through three interlinked components that build on achievements and integrate lessons learned from IACoV phase I, as detailed in Part II.A, to deliver an integrated package of interventions to address the key causes of vulnerability to climate change and food insecurity for vulnerable smallholder farmers and associated groups in selected districts in Lesotho.

Project area and target groups

The GoL, in partnership with WFP, seeks to continue strengthening the resilience of rural poor and vulnerable, food insecure communities and households in the low-lying areas of Lesotho, and to scale out project operations into the mountainous district of Thaba Tseka. The project will include climate services and awareness raising activities with a national reach, as described below, while four districts will be targeted for concrete adaptation interventions: the three southern districts of Mafeteng, Mohale's Hoek and Quthing, as well as the central district of Thaba Tseka. All four districts have poor socio-economic status and high risk of climate impacts, as identified in the National Adaptation Programme of Action (NAPA).[66] The high levels of vulnerability in the four districts have been confirmed using two complementary and mutually reinforcing frameworks, namely the 2015 Integrated Context Analysis (ICA) and the NAPA, as well as through the 2024 Integrated Food Security Phase Classification (IPC), the climate risk analysis conducted in 2023 (see below), and the stakeholder and community consultations carried out to develop ~~op phase I and~~ the proposed phase II of IACoV.

[65] Lesotho: A diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
[66] GoL 2007. National Adaptation Programme of Action. Lesotho Meteorological Services.



Map 2. IACoV Phase II map showing community councils[67]

The NAPA classifies the country into three main vulnerability zones: Zone I (Southern Lowlands across the Senqu River Valley), Zone II (Mountains), and Zone III (Lowlands and Foothills). Owing to their socio-economic and biophysical parameters, the project will operate in the community councils that are most vulnerable to climate-induced risks and are within Zone I in Mohale's Hoek and Quthing districts, Zone II in Thaba Tseka district and Zone III in Mafeteng district. The southern lowlands region, in which the original three districts of IACoV are located, shows high vulnerability to climate change with poorer soils than the northern lowlands areas, and severe damage to ecosystems and geo-morphological conditions that result in a diminishing ability to support agriculture in general.[68] The vast majority of Thaba Tseka lies in the Mountains zone, which was identified as Vulnerability Zone II in the NAPA and is vulnerable to climate hazards, livestock diseases and market related shocks, with only a small part lying within the Senqu River Valley zone. This translates into a longstanding high prevalence of chronic malnutrition levels in Thaba Tseka.[69]

Moreover, the recent Integrated Food Security Phase Classification (IPC) highlights that although all 10 districts in the country are projected to be in a Crisis food insecurity situation (IPC Phase 3) which calls for urgent interventions to safeguard lives and livelihoods, Quthing and Mohale's Hoek are amongst the most affected districts, with 5 percent of the population classified in Emergency (IPC Phase 4) for each. Thaba Tseka has 20 percent of its population in Crisis food insecurity situation, with malnutrition levels in the community councils in which the project will work amongst the highest in the country.[70] Thus, the targeted population in the selected districts is identified as chronically vulnerable and most at risk of the adverse impacts of climate change. This includes the poor and very poor socio-economic groups comprising of smallholder subsistence farmers, the elderly, people living with disabilities, as well as female and child-headed households, unemployed youth, and people living with HIV and AIDS.

Table 1 below indicates high levels of poverty and vulnerability in the project districts. While overall national poverty fell from 56.6 percent to 49.7 percent between 2002/2003 and 2017/2018, it increased in Thaba Tseka (by 35.9 percentage points) and Quthing (by 2.1%). Thaba Tseka had the highest poverty rate amongst the 10 districts with a poverty rate of 74.8 percent in 2017/2018, and Quthing the third highest at 56.3 percent.[71]

Table 1. Summary of key socio-economic variables for the project target districts

	Mafeteng	Mohale's Hoek	Quthing	Thaba Tseka
Poverty rate[72]	52.6%	56%	56.3%	74.8%
# in IPC Food Security Phase 3[73]	39, 802	40, 579	30,028	26, 067
% people with Low Dietary Diversity[74]	44%	55%	47%	36%

[67] Map 2 will be updated early in project implementation, once the final identification of the localities within the depicted councils has been conducted. The updated map will indicate areas of overlap with phase I, in the four councils where there will be this overlap. The updated map will be shared with the AF in the PPR.
[68] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[69] Lesotho Zero Hunger Strategic Review 2018.
[70] Lesotho IPC Acute Food Insecurity Analysis, May 2024 – March 2025. Published 8 August 2024.
71 Lesotho Bureau of Statistics (2019) Lesotho Poverty Trends and Profile Report 2002/2003 to 2017/2018.
72 Lesotho Bureau of Statistics (2019) Lesotho Poverty Trends and Profile Report 2002/2003 to 2017/2018.
73 Number of people classified in Integrated Food Security Classification Phase 3 for the period May to September 2024
74 Lesotho Vulnerability Assessment Committee (LVAC) 2024

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HIV prevalence (15-49 years)[75]	31.9% W 15.4% M	29.5% W 16.3% M	30.5% W 17.5% M	23.4% W 17.1% M
People with disabilities[76]	10%	8.6%	4.8%	6.8%
Access to electricity[77]	33.7%	19.1%	33.1%	11.4%

The high rates of stunting and anaemia among children under five in Lesotho indicate a higher prevalence of both forms of undernutrition among mountain residents.[78] Many households unable to afford their dietary energy sources are found in mountainous areas like Thaba Tseka, where 73 percent of households are unable to afford a nutritious diet and poverty rates are high. [7980] The percentage of people with low dietary diversity in Thaba Tseka, as set out in Table 1, masks the true situation in the remote and mountainous areas where project sites will be concentrated; vulnerability to climate change in these areas is exacerbated by the very low levels of access to services, with only 11 percent of households having electricity, low levels of access to sanitation, and very poor road access.

The community consultations reinforced secondary information showing that the targeted areas have high levels of poverty, unemployment, lack of access to services such as electricity, sanitation and reliable sources of clean water for household and productive use. In the four districts, agriculture is the primary source of livelihood for both women and men, with livestock a significant contributor. Additional income-generating activities include rosehip harvesting, fruit drying (mangangajane), sale of medicinal herbs (khoara), home brewing (Phephesela), Litolobonya stokvel,[81] and mohair and wool shearing. In large parts of the districts, infrastructure development is minimal, with no provisions for telecommunications, electricity, road construction, bridges, or potable water for some existing or newly established villages. Environmental degradation, which is exacerbated by drought and erratic rainfall, reduces the viability of livelihoods: in the three southern districts there is significant land degradation and soil erosion, while Thaba Tseka, is affected by overstocking and rangeland degradation, but has fewer gullies. The dominant agricultural practices are subsistence and monoculture with conventional tillage, which depletes the soil, and causes further erosion and destruction of biodiversity in the long run. Declining agricultural and livestock productivity have severe impacts on rural livelihoods of women, men, female and male youth. Firewood and other sources of fuel are depleted, increasing the burden largely for women and girls who gather this.

Table 1 and **Box 1** provide information on the socio-economic conditions and a district profile for the targeted districts in which concrete adaptation assets will be developed. Please also see **Annex 5** for the detailed report on the results of the community consultations process.

Box 1. Profiles of the four districts targeted for concrete adaptation measures

Mafeteng district is in the western part of Lesotho, bordering on Maseru district to the north and Mohale's Hoek to the south. The landscape includes foothills, valleys, and rivers. The population is approximately 198,962, with equal proportions of males and females. There are more male youth and adolescents (55%) than females (45%), while the elderly (60+) have more females (62%) than males (38%). Around 10% of population in Mafeteng are people living with disabilities.[82] The food poverty rate is 26.7%.[83] Regarding nutritional status of children 6 – 59 months, stunting is at 35.5%, 10.8% are underweight, and 44.5% are anaemic.[84] Mafeteng is second highest in Lesotho for intimate partner violence (IPV), where 67.9% of women have experienced IPV, and third highest in terms of the percentage of men perpetrating the same, at 43.3%. Mafeteng's economy is largely based on agriculture, with maize, sorghum, and beans the main crops, and livestock farming (cattle, sheep, and goats) is also significant. Many residents are involved in subsistence farming, though some work in small businesses, run small informal trade on roadside tables, or are employed in the public sector. The district has a rich cultural heritage, with traditional Basotho customs and practices being an integral part of daily life and cultural festivals and events celebrated throughout the year, showcasing traditional music, dance, and crafts. There are several vocational training centres and a few tertiary education institutions. The district is also home to the Lesotho National Federation of Organisations of the Disabled (LNFOD), and nutrition clubs such as Rethusehile Nutrition Club. Mafeteng has had recurrent and prolonged dry spells over the years and there have been suspicions (unconfirmed) of possible desertification. Land degradation has also increased although the rate has been slowed by various interventions. Healthcare facilities include Mafeteng Hospital and numerous clinics providing primary health care services. The district is connected by a network of roads, some of which are paved. Public transportation mainly consists of minibuses and taxis. Access to utilities such as electricity and clean water is available in urban areas, though rural areas have limited access.

Mohale's Hoek district is situated in the southern part of Lesotho sharing borders with South Africa's Eastern Cape. The district hosts a total of 164,880 people, comprising 81,349 males and 83,531 females, constituting 8.2 percent of the country's total population. The youth make up 7.2 percent of the population, with a slightly higher percentage of males (7.4%) compared to females (7.0%). Inhabitants are distributed across four livelihood zones: foothills (9%), mountains (17%), southern lowlands (63%), and the Senqu River Valley (11%). The district has a population density of 222.9 people per square kilometre, with 714 square kilometres of arable land. While Mohale's Hoek, the only town in the district, hosts most services, these are difficult to access for populations in mountainous areas where roads are lacking. There is only one tarred road in the district. Over 80 percent of households have access to clean water, mainly from communal taps.[85] Unemployment is high, with 69 percent of people unemployed, and 56 percent living in poverty.[86] Mohale's Hoek ranks fifth highest in gender-based violence, with a rate of 63.9 percent.[87] More women face GBV (49.5%) compared to men (28.6%).[88] HIV prevalence stands at 22.8%, with higher rates among women (29.5%) compared to men (16.3%) aged 15-49.[89] The net migration rate is -13.2, indicating more people are leaving the district than entering.[90] The district accounts for 13.8 percent

75 Lesotho Population Based HIV Impact Assessment 2020
76 UN Lesotho Common Country Analysis report, 2023
77 Lesotho Household Energy Consumption survey; 2017
78 IOS Partners, Inc. (2022) Nutrition and Food Security – Situation Analysis and Needs Assessment Report prepared for SADP II project.
79 Fill the Nutrient Gap Summary Report 2019
80 BOS 2021A, Mapping Sub-National Poverty in Lesotho 2017/18: Methodology and Key Findings
81 Litolobonya is a form of song and dance exclusively for girls and married women; A stokvel is an informal savings club or collective savings scheme, also known as lefa in Lesotho.
82 UN Lesotho Common Country Analysis report, 2023
83 Lesotho Poverty Mapping Report 2017 – 2018
84 LDHS, 2024; and LDHS, 2014 for anaemia
85 Lesotho Vulnerability Assessment Committee
86 Lesotho Labour Force 2019, Lesotho poverty trends and profile report.
87 The Gender Based Violence indicator study, 2014
88 Bureau of Statistics (2023). 2021 Lesotho Demographic Survey. Analytical Report "Volume IV Gender Based Violence". Bureau of Statistics. Maseru. Lesotho
89 LePHIA, 2020
90 Lesotho Demographic Survey 2021

of the country's international migration, making it the second largest by district. Agriculture is rain-fed with low use of improved techniques. Food production has been declining due to various hazards and declining agricultural participation. In 2023, maize yield was 0.15mt per hectare, expected to decline further.[91] Livestock production has also decreased. The district has 71,149 cattle, 204,681 sheep, and 113,968 goats, owned by 67 percent of men compared to 33 women.[92] Mohale's Hoek in category 1a of Integrated Context Analysis with high negative ecological change indicating high exposure to climatic shocks and recurrent food insecurity.[93] Stunting among children under five stood at 44.7 percent in 2024, a 7% increase from 2014. Anaemia in children aged 6-59 months is at 56.1 percent.[94]

Quthing district, approximately 180km by tarred road from the capital city, Maseru, borders on the Eastern Cape Province of South Africa to its south, Mohale's Hoek District in the north and Qacha's Nek District in the northeast.[95] The district has a population of approximately 124,048. The total area of the district is 2,916, 9.61 percent of the country. The population density in the district is 43.00 persons per square kilometre, compared to 62 for the country. Unemployment is high, with 70 percent of people unemployed, and 56 percent living in poverty.[96] Quthing is one of the top districts with high cases of gender-based violence, with more women, and girls experiencing GBV compared to men. Child stunting, a sign of chronic malnutrition, remains high at 38.8% and 64% of households in this district are not able to meet the nutritious diet requirements.[97] The mountains form the least productive part of the district predominantly good for livestock grazing; while the Senqu River Valley forms a narrow strip of land that flanks the bank of the Senqu River and penetrates deep into the highlands. The soils within this zone vary from rich to very poor. Livelihoods are predominantly agriculture based with growing of crops and rearing of livestock as key. Snow is common in the higher peaks in the mountainous area. All livelihood zones depend on livelihood strategies such as casual labour, remittances, social grants, self-employment (trade and artisanal), agriculture (crops and livestock) and employment. For the poor agriculture and related labour activities as well as non-agriculture casual labour are major sources of livelihood security. The success of agriculture thus has a significant bearing on the vulnerability of poor households who also depend on government social protection grants. The average annual rainfall is 67mm, most of which is received during the rainy season of October to April and winter period May-July. The region has a temperate climate because of the elevation and is humid during most parts of the year. The temperature varies from 28 °C in summer to 2 °C in the winter. Quthing is one of the driest districts in the country and drought is the most widespread hazard. It is normally faced with multifaceted food insecurity and related challenges due to declining agricultural production. The IPC (Integrated Food Security Phase Classification) study of 2023 shows that at least 20% of households in the district are at phase 3 of poverty and therefore need continuous humanitarian support.

Thaba Tseka district has one of the lowest population densities, given its mountainous nature, with around 28 people per square kilometre. It has a population of approximately 135,347 (34,000 households), of whom men comprise 49% and disability prevalence is at 1.8%. Youth make up 36% of the population, the highest among all age groups. Life expectancy in the district is around 41 years (39 for males and 45 for women)[98]. Thaba Tseka is characterized by barren and rugged mountains. Rangeland degradation linked to livestock numbers and management impacts on the functioning of wetlands responsible for water production for the Lesotho Highlands Water Project, which transfers water to South Africa. The district has two agro-ecological zones: the mountain zone, which hosts 87% of the population, and the Senqu River valley. Livelihoods are predominantly agriculture-based, with wheat, maize, peas, and beans being the key crops grown. Livestock rearing, including sheep, goats, cattle, donkeys, horses, and poultry, is also significant. Unemployment is high and many young men enter illegal mining activities in South Africa, leading to high levels of deaths from being trapped underground, or from mining-related gang killings. Thus many young women in the district are widowed. Over the last five years (2020 to 2024), 21% of the population has remained in Phase 3+ of the Integrated Food Security Phase Classification, indicating crisis. Key drivers of this food insecurity include recurrent droughts, heat waves, late rains, and heavy rains that negatively affect crops and reduce harvests. Chronic malnutrition (stunting) is rife in Thaba Tseka; 55% in 2009, 40% in 2014 and 46.3% in 2024[99]. Iron deficiency anaemia is a huge concern with 53.5% of children 6-59 months affected. Minimum Dietary Diversity is the lowest in the country with less than 11% of children eating at least four food groups. 23.4% and 17.1% of women and men respectively lives with HIV in the district. GBV is recognized as one of the drivers of HIV in the country and poses a significant developmental and economic challenge in Thaba Tseka. The district has the highest lifetime Intimate Partner Violence (IPV) rates in the country, with 69% of women reporting such experiences, as well as the highest teenage pregnancy rate at 22%[100] and a notable incidence of child marriages. Most urban households have piped water in their dwelling or yard, while, rural households mainly rely on public taps, followed by unimproved sources. Rainwater harvesting is relatively low. Some households collect water from a river for domestic purposes including cooking and drinking. Despite hosting two tertiary institutions (Paray School of Nursing and Thaba Tseka College of Higher Education) and two vocational schools (Manteko and Thaba Tseka Vocational), the district lags in educational achievements: 26% of men have no educational attainment compared to 2% of women.

Organisations present across the districts providing support from government are primarily from Ministry of Health, through Health Centres that are also supported by NGOs such as Partners in Health; Ministry of Agriculture, Food Security and Nutrition through the Agricultural Resource Centres (ARCs), although many of these are in a poor state and extension services are low, and through nutrition services; Ministry of Environment and Forestry, largely through forestry and rangelands extension services; and support provided by local government through the DA, councillors, and chieftainship. There is one district environment officer in each district and limited gender staff. NGOs such as Catholic Relief Services and World Vision are present in most districts, with limited coverage. Financial services include formal banking in the district headquarters, mobile banking, and informal groups such as Savings and Internal Lending Communities (SILC) groups in most villages.

A climate risk analysis carried out for the three southern districts during phase I of IACoV mapped the six most important variables that affect food security **in all 10 districts of Lesotho**: (i) Change in the monthly maximum value of daily maximum temperature; (ii) Change in the annual total number of frost days (where minimum temperature < 00C); (iii) Change in the maximum number of consecutive dry days; (iv) Change in the length of the growing season; (v) Change in the total volume of annual precipitation; and (vi) Change in the intensity of rainfall. The analysis revealed that while the hazards affecting different areas in the southern districts are diverse, a primary area of risk is the southern / eastern highlands where the opportunities to grow large amounts of food do not exist due to limited arable land, poverty is high and access to markets and support services is limited. In these areas, a forecast reduction in rainfall, increased temperatures and expected higher livestock parasite loads suggest that the food security of these communities is at the highest level of risk in the study area.[101]

Further key findings of the climate risk analysis in the three southern districts include:

- Increased maximum temperature of between 2.4 and 2.6 degrees Centigrade from historical baseline is forecast over the period 2011 – 2040, which is likely to affect crops and livestock through increased heat-related stress.
- The number of frost days is forecast to reduce substantially, which is likely to improve crop growing conditions where frost damage to crops is frequent but will also increase parasites such as ticks and their diseases.

[91] Lesotho Crop Forecasting 2023
[92] Lesotho agricultural production survey 2021/22
[93] Lesotho Integrated Context Analysis, 2015
[94] Lesotho Demographic Health Survey 2024
[95] The district is divided into six constituencies and six community councils, namely Mphaki, Telle, Tosing, Urban, Mjanyane and Qomoqomong.
[96] Lesotho Labour Force 2019, Lesotho poverty trends and profile report.
[97] Lesotho Fill the Nutrient Gap Report; 2020
[98] 2014 Lesotho Demographic Health survey report
[99] Lesotho Demographic Health Survey reports
[100] Lesotho DHS 2024 key indicator report
[101] Quayle. L., Browne. M., et al. 2023. Climate Risk Analysis and Mapping. Climate, Food Security and Nutrition Analysis in selected Community Councils of Mafeteng, Mohale's Hoek and Quthing Districts, Lesotho – Technical Report Volume 3. A report to the IACOV project.

- Dry spells will become longer by up to four days, particularly in the southern and eastern areas. This is likely to negatively impact rainfed crops as soil moisture is reduced.
- The length of the growing season (temperature only) is forecast to increase across the three districts, though significantly more in the high-lying eastern areas; if not accompanied by sufficient precipitation, the change will not allow any improvement in cropping conditions.
- The total volume of annual precipitation is forecast to reduce up to 6% in the higher lying eastern and southern areas and to increase nearly 4% in the western areas; however, timing of rainfall was not integrated.
- Rainfall intensity, which influences the infiltration and runoff ratio, and thus the erosive and flooding potential, is forecast to increase, most notably in central high-lying areas. The Senqu River valley is shown to be vulnerable to soil erosion, whilst Mafeteng's lowlands show increased vulnerability to both soil erosion and flooding.

Thaba Tseka district was not included in the climate risk analysis, which focused on the three southern districts. Community consultations (Annex 5), corroborated by government extension staff, identified the climate risks of recurrent droughts, heat waves, late rains, and heavy rains that negatively affect crops and reduce harvests as being the key drivers of food insecurity in the district.[102]

Across all four districts, community consultations (see section II.H) indicated a range of observed climatic changes across the villages, namely increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, disruptions to normal snowfall patterns, increased summer temperatures and extremely cold winters. While drought used to occur once in five years with minimal impact, currently it is prolonged, with severe impact, and can occur in consecutive years.

Community members highlighted significant challenges to their lives and livelihoods as a result of these climatic changes, including shift in cropping seasons; reduced agricultural productivity and increased food insecurity; new and increased pests and diseases that are difficult to manage; increased water scarcity with excessive burdens for women, female youth and girls; compromised WASH and child care practices; reduced availability of firewood and increased collection burden, especially for women, female youth, and girls; reduced availability or local extinction of indigenous vegetables and medicinal plants extinction; soil erosion and poor soil absorptive capacity leading to increased desertification; rangeland degradation and livestock decline; a range of health impacts, especially on children; damage to houses and infrastructure from strong winds and dust storms; and disruption to traditional communal practices and widening economic disparities.

Within the four districts, the target group for the concrete adaptation activities is poor and climate-vulnerable smallholder farmers across age and sex groups with high levels of vulnerability to current and projected climate risks. The project will target more women than men, in recognition of the feminization of agriculture in Lesotho, and the differentiated needs and increased vulnerabilities of rural women. Thus the project will target at least **60 percent females** and will especially focus on female-headed households that are more food insecure. The project will further target rural female and male youth living in areas with high levels of climate risk and low employment opportunities; the **youth target will be 40 percent** of project beneficiaries. The **particularly vulnerable groups** identified for inclusion in the project are female-headed households, herders, poorer households, people living with disabilities (PwD), people living with HIV/AIDS, and young mothers.

As indicated in **Table 2**, the project is estimated to have a total of 186,492 direct beneficiaries (categories A and B) and an estimated total of 1,253,468 indirect beneficiaries (categories C and D).

Table 2. Summary beneficiary table

Category	Receiving benefits from:	No. of people/HHs	Total beneficiaries
A	Cash transfers, inputs, tools and technical assistance (the most vulnerable)	28,800 HHs x 4 = 115,200[103]	Total number direct beneficiaries in 4 districts = 186,492
B	Inputs, tools and technical assistance (food insecure but less vulnerable people)	71,292[104]	
C	Community assets, climate services & awareness raising (indirect beneficiaries in **4 districts**)	143,708[105]	Total number indirect beneficiaries = 1,253,468
D	National-level awareness raising strategy, EW and climate services (indirect beneficiaries in **remaining 6 districts)**	1,109,760[106]	

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[102] Additional observed climatic changes in Thaba Tseka were strong winds extending beyond the previous limits of August and September, and disruptions to normal snowfall patterns.
[103] Calculated using the AF formulation for direct beneficiaries as set out in 'Methodologies for reporting Adaptation Fund core impact indicators'.
[104] 15,000 of whom are herders.
[105] 60% of total population in the four districts who use mobile phones.
[106] Corresponding people who use a cell phone and could consequently receive EW messages and climate services via their phone; this is estimated at 60% of Lesotho's population of 2 million. The 1,109,760 represents 60% of people in the remaining six districts, where asset creation is not being implemented.

The project will target 60 percent female and 40 percent youth beneficiaries for categories A and B, while category C beneficiaries represent the total population of all community councils in the four districts, of which 52 percent are women/girls, and 48 percent are men/boys. The full population of the four targeted districts (all community councils) is 228,800 people, of whom 24 percent or 54,900 are youth. In the four districts, direct benefits from the asset building activities under Component 3, through the cash-based transfer (CBT) mechanism, will be implemented at 18 project sites and for four of the five years of the project's duration. The CBT will be provided to beneficiaries working on community-level adaptation assets such as the soil and water conservation measures and land restoration activities described in **Table 5**, to help the most vulnerable food insecure households to cover their lean season food gap, so they can participate in asset creation activities to build resilience and adapt their livelihoods for longer-term climate change.[107] The Category A beneficiaries for CBT include male and female smallholder farmers, youth, HHs with people with disabilities, and those from the other particularly vulnerable groups identified above.[108] 60 percent of the CBT beneficiaries will be women, and 40 percent will be youth. Children will not participate in the CBT activities but will benefit from awareness raising and educational activities under Outcome 2.2. Category D comprises those indirect beneficiaries in the remaining six districts who will benefit from the national-level awareness raising, anticipatory action for drought, and climate services activities. Please see **Annex 11** for the beneficiary table and associated notes, which provides further disaggregated beneficiary numbers.

Phase II of IACoV targets poor, climate-vulnerable smallholder farmers across all age and sex groups in four districts. Thus there is a geographical scaling up at the district-level, as Thaba Tseka has been added as a fourth district to the original three southern districts of phase I. Phase II will target 18 project sites (community councils), while phase I targeted 21 project sites. Of the 18 project sites in phase II, 14 will be new sites – i.e., these sites were not included in phase I. Thus 14 new community adaptation plans (CAPs) will be developed, and all of the beneficiaries in these sites will be new beneficiaries. The remaining four (out of the 18) project sites in phase II are sites that were included in phase I. In these sites, there will be horizontal expansion by involving new people within the same geographical areas in the villages covered in phase I, as well as vertical expansion to new villages that were not covered in phase I. In these four sites, the CAPs as developed in phase I will be updated in phase II as they have exceeded a duration of four years.

Although the project sites for direct implementation of community and household adaptation assets in phase II (18) is slightly reduced from the number of project sites for phase I (21), the activities will result in an overall scaling up of results. For example, the area of degraded land rehabilitated will increase from 62,411 hectares (ha) in phase I to 100,000 ha in phase II. While 15 ha of wetlands were protected (in the 3 southern districts) under phase I, phase II will aim to protect 50 ha of wetlands (in the 3 southern districts and Thaba Tseka). This scaling up of the area of land to be rehabilitated in phase II across all four districts is possible due to the capacity developed within the GoL staff, as well as the systems established, during phase I. The GoL staff has gained significant experience in land rehabilitation, project management, and community engagement, enabling them to effectively manage and scale up operations. Additionally, key systems developed in phase I such as GIS and satellite monitoring instruments ensure that the scaling up can be done efficiently and in compliance with AF standards.

The overall number of youth and herder beneficiaries will also increase, in recognition of their heightened vulnerability to climate change and the realisation that phase I activities did not optimally address the level of need. While youth beneficiaries of CBT (Category A) in phase I numbered 3,500, phase II will reach 11,520 (i.e. 40% of 28,800 HHs). The youth beneficiaries of inputs, tools and technical assistance (Category B) will increase from 5,800 (phase I) to 28,516 (phase II). Herder beneficiaries will increase from 6,500 (phase I) to 15,000 (phase II). The strengthened national and district level institutional structures and systems for climate change awareness raising and communication in phase I reached 135,602 people, while phase II aims to reach 1,109,760 people, to be disaggregated by M/F/MY/FY.

Table 3 contains further details concerning the scaled-up results projected for phase II.

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I.C. Project Components and Financing

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory	Outcome 1.1: Strengthen institutional capacity and systems to enhance accuracy of sub-seasonal to seasonal climate forecast	Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services	542,595 374,726 263,860

[107] Additional information is provided in the text on Component 3, in section A of Part II.

[108] However, in the case of herders, they have other animal herding responsibilities which usually preclude them from more labour-intensive asset creation activities. Therefore, a specific package of interventions to benefit herders has been developed which does not rely on CBT-related activities. Childcare will be provided to allow young mothers from food-insecure HHs to benefit from CBT, as implemented in phase I. Amongst the food insecure HHs, those with people with disabilities will be prioritised for participation in CBT activities. The standard work norms that allow lighter works allocated to women will be used. However, in most cases, an able-bodied member of the HH would carry out the asset creation work, on behalf of the person with disabilities. People living with HIV/AIDS who are on antiretroviral treatment are usually able to participate in CBT-enable asset creation.

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action, and gender-responsive last mile climate services		Output 1.1.3: Enable GoL innovations to generate revenue for sustainability	
	Outcome 1.2: Drought anticipatory action scaled out and development of national multi-hazard AA system supported	Output 1.2.1: Scale out the anticipatory action for drought system to all 10 districts Output 1.2.2: Support development of gender-responsive national multi-hazard AA system	350,860 353,865
	Outcome 1.3: Communities and vulnerable groups access and use gender-responsive last mile climate services	Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis	446,848
Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation	Outcome 2.1: Strengthened institutional structures and systems at different levels for climate change awareness raising and communication	Output 2.1.1: Strengthened national and district level institutional structures and systems for climate change awareness raising and communication	646,735
	Outcome 2.2: Raised awareness of scholars on climate impacts and climate change / food security / gender / nutrition nexus	Output 2.2.1: Deepen and scale out teacher training and school climate change activities	376,295
	Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy	Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy	499,530
Component 3: Building resilience through community-based adaptation measures to strengthen food systems	Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change impacts	Output 3.1.1: Participatory community adaptation plans developed Output 3.1.2: Community and individual nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation Output 3.1.3: Entrepreneurial opportunities promoted and market linkages established for climate-resilient value chains	440,165 2,998,556 752,339
	Outcome 3.2: Enhanced institutional systems and policy advocacy for climate adaptive social protection	Output 3.2.1: Policy advocacy and systems development to support climate adaptive social protection	294,639
Project Execution cost			875,576
Total Project Cost			9,216,589
Project Cycle Management Fee charged by the Implementing Entity			783,411
Amount of Financing Requested			10,000,000

Projected Calendar

Milestones	Expected Dates
Start of Project Implementation	July 2025
Mid-term Review	December 2027
Project Closing	July 2030
Terminal Evaluation	December 2030

PART II: PROJECT/PROGRAMME JUSTIFICATION

II.A. Project components

The intended second phase of the project will extend and amplify the results of IACoV Phase I, as set out in **Annex 2**, including through addressing key findings of its Mid-term Review (MTR), as detailed in **Annex 1**.

Theory of Change: The project's Theory of Change is designed to address the climate risks and adaptation needs identified through the community consultations process, as summarised in section section II.H and documented in detail in **Annex 5**. In the project areas, the combined impacts of climate stressors such as increased droughts and erratic rainfall, combined with poor land management, have resulted in a high level of land degradation that has reduced agricultural and livestock productivity. This has resulted in low nutritional status and high levels of food insecurity and vulnerability to climate change, exacerbated by cultural attitudes that have entrenched gender inequality. The project actions will break the land degradation – climate change – poverty – vulnerability cycle through physical adaptation actions (asset creation) informed by enhanced climate services and strengthened capabilities for climate-resilient agricultural approaches. The project will strengthen local climate adaptation based on enhanced ecosystem resilience while promoting diversified livelihoods that enhance food and nutrition security. Increased use of technologies, including digital applications for climate services and marketing, will be deployed to further scale up the activities. The project will adopt as a central organising element the climate change – food security – gender – nutrition nexus (CC-FS-GEN-NUT), in recognition of the causal interlinkages between these elements in Lesotho. The project's approach includes risk layering, through: (i) risk reduction activities in the form of enhanced climate services and early warning-early action (Component 1), enhanced knowledge of climate impacts and response options (Component 2), ecosystem regeneration, natural resource management and climate-smart agricultural technologies (Component 3), layered with (ii) sustainable risk absorption through improved access to savings to help households cope with smaller, more frequent shocks, as well as better access to markets to enable livelihood diversification, and (iii) prudent risk taking through access to microfinance, so farmers can make further investments in developing climate resilient livelihoods. In this way, vulnerable smallholder farmers will be supported to generate increased production and obtain more income in a climate-risk-informed manner, towards enhancing their adaptive capacity. The ensuing description of project activities under each component highlights the important interlinkages between activities across components, as well as their necessary sequencing.

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IACoV phase II will continue supporting full utilization of the High-Power Computing system (HPC) located in Lesotho Meteorological Services (LMS) for enhanced climate modelling and more accurate forecasting. Capacity strengthening of relevant institutions in the usage of the HPC and on developing agromet advisories and last mile climate services (LMCS) will be implemented. Building on the support provided to LMS, the Disaster Management Authority (DMA), and sector and district stakeholders in IACoV phase I, the project will upscale the anticipatory action (AA) system for drought to cover the six remaining districts (out of Lesotho's total of 10 districts) and will support the GoL to develop a roadmap for a national multi-hazard AA system. National, sub-national and community level early warning systems will be strengthened.

The National Climate Change Communication Strategy (NCCCS) that was developed and executed in the three southern districts during phase I will be revised to integrate the climate change – food security – gender – nutrition (CC-FS-GEN-NUT) nexus and district action plans will be scaled up in the remaining seven districts. Integration of climate change into the national school curricula, strengthened through inclusion of the CC-FS-GEN-NUT nexus, will extend to the remaining seven districts. The project will include integration of climate change into the non-formal education curricula targeting those who are not able to access formal education, such as herders. The project will continue to capacitate the media on climate change and nutrition reporting.

The above activities will be implemented to support effective and sustainable concrete adaptation and resilience building at the local level. Thus phase 2 will continue to implement asset creation through the public works programme in the community councils to support livelihood and natural resource management interventions in a sustainable manner, as recommended in the MTR. The project will scale up the approach adopted under phase I in the southern districts of Mohales' Hoek, Quthing and Mafeteng, by adding additional areas, to increase the amount of land rehabilitation and natural resource management (NRM) upon which enhanced livelihoods can be based, with enhanced adoption of climate-smart agriculture, underpinned by improved climate risk management. This basic theory of change still applies, but with some refinements to the implementation modalities, as set out below. This approach will be scaled out into Thaba Tseka district, where operations will be limited to a small number of community councils to reduce transaction costs and have greater impacts; WASH activities will be integrated in recognition of severe community needs and requests in this regard, by leveraging in service providers. The project will develop a significant, and diverse, number of concrete adaptation assets, as set out in the adaptation menu of options, resulting in the development of at least 300 community-level and 5,000 household-level adaptation assets. These will include soil and water conservation measures, (e.g. hillside terraces, stone bunds, diversion weirs, gully reclamation works, sand dams, etc.), vegetable gardens, orchards, drought-resistant and heat-tolerant sorghum and beans, climate-resilient small livestock, high-value tree production and bee-keeping, household water harvesting (roof), family drip irrigation systems, low-cost micro ponds for livestock, fish ponds, etc. Please see **Table 5** and associated narrative for further details. The project's proposed capacity building and training activities are included to enable this participatory development of concrete adaptation assets and are seen as an essential element of the project's sustainability strategy.

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The project will continue to strengthen the capacity of government and public institutions as well as private sector in post-harvest management practices and innovative solutions. Enhanced climate-resilient production linked to actions to reduce post-harvest loss (PHL) will assure commodity availability for market access for improved livelihoods. To ensure participation of all groups especially the youth, phase II will implement innovative market access solutions including digital marketing tools, as well as enhanced access to financial services and business development support.

For IACoV phase II, **scaling up and out** will entail:

- Covering larger areas and including more project beneficiaries – this includes increasing the size of the operations in the three southern districts that were included in phase I, as well as expanding and replicating phase I activities into a fourth district, Thaba Tseka
- Enhanced **technical support** for integrated planning and implementation
- Continued **strengthening of GoL systems and extension services**, including expanding the development and implementation of drought anticipatory action systems from four districts into all 10 districts of Lesotho; and extending full implementation of the National Climate Change Communication Strategy (NCCCS) from three to ten districts
- Promoting **peer-to-peer learning** through several mechanisms
- Involving key **partners** and **leveraging in additional resources**
- Stronger focus on **fully operationalised last mile climate services** (LMCS)
- Targeted focus on **youth**, through an integrated support package
- Enhanced focus on **entrepreneurial opportunities, market access** and **impactful value chain** development, through which IACoV can create the conditions for agricultural start-ups
- More **evidence-based policy advocacy** to influence government systems for sustainability

The shift in the implementation approach will include: (i) reinvigorated **gender-transformative awareness raising**, implemented as a **continuous process**; **(ii) a programmatic approach to capacity development**, with a comprehensive training strategy to cover all three components as well as M&E, harnessing synergies and efficiencies, as an early step; (iii) **strengthening along the entire food system**, with more attention paid to market access than in phase I; (iv) a greater role for the **private sector**; and (v) **strengthened sustainability provisions and exit strategy**, including through enhanced systems building.

Table 3 summarises the distinction between some of the anticipated and achieved key results of IACoV phase I and the focus and expected outcomes of IACoV phase II. This is provisional as the final evaluation has not yet been conducted for phase I; thus, the achieved results have not yet been independently evaluated.

Table 3. Anticipated or achieved results for IACoV phase I versus phase II, indicating increased scale

Results area	**Phase I – achieved results**	**Phase II – expected results**
Rehabilitated land with improved vegetation cover	62,411 hectares (ha)	100,000 ha
Protection of wetlands	15 ha (in the 3 southern districts)	50 ha (in the 3 southern districts and Thaba Tseka)
Youth beneficiaries of CBT (**Category A**)	3,500	11,520 (i.e. 40% of 28,800 HHs)
Youth beneficiaries of inputs, tools and technical assistance (**Category B**)	5,800	28,516 (i.e. 40% of 71,292)
Herder beneficiaries	6,500	15,000[109]
Drought anticipatory action system developed and implemented - No. of staff trained (on drought AA) to respond to, and mitigate impacts of, climate-related events	4 districts 38 men, 48 women	10 districts 120 men, 80 women, 10% youth
Strengthened national and district level institutional structures and systems for climate change awareness raising and communication - # of district CC AR Action Plans updated and fully operationalised - # people reached through inter-personal SBCC approaches on CC-FS-GEN-NUT nexus	3 135,602	10 1,109,760, by M/F/MY/FY

[109] Of the total of 71,292 Category B beneficiaries.

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# of schools implementing CSA activities	300	2,000
Seed banks developed and/or further supported	1 (national-level)	2 (1 national and 1 district)
Participatory community adaptation plans developed or revised	21	18[110]
Community and HH-level adaptation assets developed	Community: 151 Household: 1,000	Community: 300 Household: 5,000
# and type of inputs, equipment and structures provided to reduce PHL	690 (tarpaulins, storage pallets, weighing scales, solar dryers)	3,000 (structures, tarpaulins, storage pallets, weighing scales, solar dryers)
Climate-resilient value chains supported	2[111]	5[112]

A key **process element** of the approach will be to link capacity development and advocacy for systems building through the following ongoing process: Train → Implement → Build evidence → Leverage more funding → Build government systems → Train → Etc. Evidence generated, including through a strengthened feedback loop from the ground level, will be used to capacitate and sensitize leaders/technocrats, to enhance leadership as a key element of systems building.

The project will continue to support a mix of community and household approaches in adaptation asset creation and will adopt a number of ways to promote integration across the project components, for more effective and efficient implementation. A primary mechanism will be the adoption of the **climate change / food security / gender / nutrition nexus** (CC-FS-GEN-NUT) as the central nexus of the project, with all activities wherever possible being required to contribute to this integration. The project approach will thus place nutrition and gender issues at the centre of efforts to enhance food security through adaptation to climate change. While the nexus elements were included in phase I, their integration was not sufficiently intentional and thus not all synergies were harnessed. In addition to the conceptual dimension of this nexus, phase II will strengthen the geographic convergence of these nexus elements at the community, district, and national level and document the results for dissemination of lessons learned.

Box 2. Adopting the climate change / food security / gender / nutrition nexus (CC-FS-GEN-NUT)

The nexus approach is a method for dealing with sustainable development challenges in an integrated manner, considering multiple variables at once. The word "nexus" means "link" or "connection". The aptly named approach involves the assessment of several interconnected components.

The interlinkages between climate change and food security are well known, have been extensively assessed and reported on by the IPCC and other international climate initiatives, and were the central focus of phase I of IACoV. While analysis exists on climate change, food security and gender interlinkages, there has been little or no focused attention on integrating nutrition into such nexus work. However, the project community consultations and gender assessment (Annex 6) highlight that both gender and nutrition are causally interlinked with climate change and food security in Lesotho. For example, the increasingly erratic rainfall and more frequent drought and dry spells result in poor agricultural productivity and frequent crop failure; this low food production leads to poor nutritional status of children which affects their physical development, school performance and attendance, prospects in life, and, ultimately, the economy of the country. Food insecurity in communities often leads to gender-related issues such as adult negligence, teenage pregnancy, underage sex-work and rape; which were raised as concerns during the community consultations. Parents leave young children on their own either because they have gone out to fend for the household or have gone to taverns. This habit exposes children to sexual predators and use of drugs and alcohol at young age. Some children end up trading in sex to feed themselves and their siblings as there are no parents to take care of them. Child marriage for girls as young as 12 years is prevalent, limiting their educational status and ability to make sound decisions regarding household food and nutrition security.

By adopting the CC-FS-GEN-NUT nexus, the project will intentionally integrate the four elements into project activities, based on an understanding of their interlinkages and how these play out in Lesotho, in a manner that seeks multiple benefits across the nexus elements. For example, implementing anticipatory action grounded in the CC-FS-GEN-NUT nexus would necessitate ensuring that AA response is nutrition- and gender-sensitive, in addition to addressing concrete climate risks and furthering community adaptive capacity to maintain and improve their food security. An early step in project implementation will be to spell out what the nexus means in practical terms in the project context, after which materials will be developed that provide practical guidance for implementation (Output 2.2.1). The CC/FS/GEN/NUT materials will include approaches for social and behaviour change communication (SBCC) on GBV, building on and deepening the phase I experience with SBCC on GBV, as this is clearly a challenge in the project areas. The 'picture' of the nexus will be built up through simple lessons learned templates that document the approach taken to apply the nexus in project activities and that identify successes and potential refinements.

The community-based participatory planning (CBPP) process for adaptation planning introduced by IACoV phase I will be continued. There is already good institutionalisation of this as sector staff are using the CBPP skills learned from phase I in their respective departments. The approach to local adaptation training and asset creation (Component 3) has been found to be effective and allowed for continued execution of activities during the COVID-19 pandemic when movement was highly restricted, as field supervisors had been trained and were able to support beneficiaries to make homestead gardens and benefit from vegetables produced. The project will respond to a further MTR finding by closing the circle and connecting increased water availability through anticipatory action and project soil and water conservation (SWC) with water for orchards, community gardens and household (HH) gardens; and link this to enhanced income generating activities (IGAs) for vulnerable smallholders and village residents.

[110] Out of 18 project sites in phase 2, 14 will have new CAPs while 4 CAPs will be updated in the sites maintained from phase I.
[111] Fruit and Vegetables (solar dryers, market access activities, preservation) and beans (pallets, hermetic bags) were supported in phase I.
[112] These are likely to be Fruit and Vegetables, Sorghum, Beans, Medicinal plants, and Rosehip.

In terms of systems strengthening, phase II will have a more intentional focus on promoting good governance. Under phase I, good governance was largely promoted through improving coordination across ministries at national and district level, developing regulations and by-laws for maintenance of community assets, and institutionalising CBPP. Phase II will continue and build on these approaches but will deliberately generate enhanced evidence to use in policy advocacy and will support dialogues and platforms on NRM as well. This is needed in Thaba-Tseka, where the degraded state of wetlands requires strong efforts to enhance rangeland and grazing management, which in turn will necessitate governance initiatives such as support to develop a multi-stakeholder platform and/or district strategy to promote sustainable and climate-resilient rangeland management.

In Phase I of the IACoV project, nutrition interventions focused on enhancing food security, improving dietary practices, and providing targeted nutritional support. Key actions included provision of cash-based transfers to address immediate hunger needs during the lean season, promoting horticulture and small livestock production for nutrition, and delivering nutrition messages to different socioeconomic groups. These interventions led to significant positive impacts: vegetable production improved at household and community levels; household food consumption improved; and community members benefited from increased awareness about nutrition, leading to improved overall dietary habits and health outcomes. These interventions will be continued and scaled up across all project districts in phase II, with more focus paid to men and herders. The project will include novel approaches such as working with a local celebrity chef to promote uptake of a wider range of food, including indigenous foods with high nutritional values. The project's programmatic approach to training will implement ongoing refreshers linked to ongoing sensitisation; for example, not only on the nutrition benefits of vegetable gardening and poultry and small livestock production, but also on building skills to implement climate-resilient technologies and approaches.

IACoV phase I implemented a number of methods to make project activities more gender-responsive, so that women and men could be engaged equitably on climate adaptation measures. These included having flexible hours for working on communal asset creation without conflicting with their daily livelihood chores, as well as providing support for childcare so that women could attend training to facilitate personal development and participation in community ecosystem regeneration. Phase II will deepen this gender-responsive approach through *inter alia* the following:

(i) community members will be encouraged to spend equal hours on community and household adaptation assets; (ii) childcare will be supported to enable women to attend training and sensitisation conducted to free up the time spent by older children looking after younger children; (iii) walking distances to the project sites will be reduced; (iv) women will be encouraged through sensitisation and exposure to successful peers to assume decision making roles and men will be included in this sensitisation; (v) the findings of a time use survey will be integrated into detailed project design to reduce time burden for women and others; (vi) women and youth participation in project structures will be supported through advocacy and training; (vii) continued and enhanced sensitisation on GBV across several project activities; (viii) activities and entrepreneurial opportunities specifically targeted for women, youth, herders; (ix) enhanced access to financial services and business development for women, youth, PwD, people living with HIV/AIDS; and (x) enhanced focus on gender-related intersectionality, including through the adoption of the CC-FS-GEN-NUT nexus as a central guide across the components and activities. Please see **Annex 6** for the Gender Action Plan, which provides additional information and mechanisms on the project's gender strategy.

Ongoing sensitisation is needed – and will be implemented *inter alia* through the CBPP process implemented in each of the 18 councils – to counter the deep-seated social and cultural norms in Lesotho that drive and normalize GBV, which has been exacerbated by the increased food insecurity and poverty resulting from climatic changes. The project will build on and strengthen the social and behaviour change communication (SBCC) on GBV that was supported during phase I, working with key partners including the Police Child and Gender Protection Unit (CGPU), the Ministry of Gender at the district level and NGOs active in the field, and involving all community age and sex groups in this. In addition to advocacy to promote the implementation of policies and practices that reinforce SBCC efforts and provide a supportive environment for addressing GBV, the project will identify the referral pathways and build the capabilities of officers (government and WFP) to sensitize communities on the GBV referral pathways.

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Targeting of children: Under phase I, the project targeted children for boosted climate change education through training of teachers on an enhanced curriculum. Under phase II, the project will continue that approach and scale it out across the entire country; it will also be extended to target children through existing water, sanitation and hygiene (WASH) clubs in some schools, or similar platforms, for education on the CC-FS-GEN-NUT nexus linked with WASH. This will respond to significant needs expressed by community members, especially in the remote areas of Thaba Tseka, where WASH conditions are poor, and low levels of climate change knowledge were observed amongst children and youth participating in the community consultations. **Box 3** summarises innovative aspects of the project.

Box 3. Innovative aspects of IACoV phase II

Innovative aspects of IACoV phase II include the following 11 elements: (i) adoption of the CC-FS-GEN-NUT nexus as a central organising concept across all components, to promote holistic and effective solutions to these interlinked elements, as well as to deepen functional integration across project components; (ii) development and scaling out of impact-based forecasting (IBF) and integration of this into enhanced AA and LMCS; (iii) assisting LMS to develop a strategy for increasing revenue generation; (iv) supporting a range of innovative options for dissemination of LMCS that integrate community perceptions and indigenous knowledge (IK) through comedians, youth, school choirs, theatre groups, amongst others; (v) incentivising novel and multi-pronged approaches to awareness

raising that integrate CC-FS-GEN-NUT, including through debates and competitions, as well as a travelling roadshow and LMS climate change marathon; (vi) identifying and supporting climate champions who go beyond the usual approach of lead farmers to also include lead herders and scholars; (vii) enhancing the good practice approach of nutrition clubs to include the project's integrated approach of CC-FS-GEN-NUT and extending this to include children (through WASH clubs); (viii) supporting innovative methods to encourage climate-resilient and nutritious production and CC/FS/GEN/NUT, such as celebrity chefs and cookery competitions; (ix) examining whether the Miyawaki mini-forest technique - for cultivating small-scale, fast-growing groves of native plants, with dense, mixed planting intended to simulate the layers of a natural forest - could be viable in Lesotho and piloting the approach if this is positively indicated; (x) implementing focused value chain support for removal of invasive species and a pathway to organic production, including advocacy for development of a Basotho Natural brand; and (xi) further developing an innovative and multi-purpose e-marketing platform that integrates agromet advisories and nutrition-related messaging with market information, for gender-responsive digitalised dissemination.

Additionally, the project's promotion of enhanced income, adaptive capacity and resilience for smallholder farmers and vulnerable groups through risk layering of climate services, anticipatory action, enhanced awareness of climate change impacts, asset creation based on regenerated landscapes, increased climate-resilient production, and enhanced market linkages, while not completely new, still represents an innovative approach that is being scaled up in the region. The project's knowledge management system will document evidence on the deployment of the innovative aspects listed above and disseminate this within and beyond Lesotho (output 2.3.1).

Annex 2 contains additional details on the achievements of IACoV phase I, as well as some of the gaps that will be addressed through the proposed phase II. Lessons learned from the implementation in phase I have been summarised in **Annex 1** and **Annex 2** and are integrated into the design of phase II. **Table 4** provides clarity on how a summarised list of key lessons learned translates into the actions within specific outputs in the proposed phase II.

Table 4. Summary: Integration of key phase I lessons learned into IACoV phase II

Key lesson	Relevant outputs	Description of how actions address the key lessons learned
There is a need for **enhanced GoL systems building** to ensure sustainability of project actions across all three components post-project	• 1.1.1, 1.1.2, 1.1.3 • 1.2.1, 1.2.2 • 2.1.1, 2.2.1 • 3.1.1 • 3.2.1	• Build the GoL systems for enhanced accuracy of the seasonal to sub-seasonal forecast, to underpin appropriate adaptation actions; 1.1.3 assists GoL to increase revenue generation and a coherent approach to climate change financing. • Build the GoL system for anticipatory action by scaling out the AA for drought system from 4 to all 10 districts, and by supporting the development of the national multi-hazard AA system – for a coherent and sustainable approach. • Build the GoL system for climate change awareness raising and communication by revising and scaling up implementation of the NCCCARS, and deepening and scaling out teacher training and school climate change activities. • Enhance the institutionalization of CBPP for community adaptation planning by increasing ToTT support to GoL staff and refining the approach for integration of community adaptation plans with district planning. • Build GoL institutional systems and policy framework to support a gender-responsive and climate adaptive social protection system.
A more **programmatic approach to capacity development** is needed, especially for extension services, and to promote its uptake into GoL systems.	• 1.1.1 • 2.1.1 • 2.3.1 • 3.1.1	• Includes developing and implementing a capacity strengthening programme for HPC management and operations, to enable strengthened S2S forecasting systems. • Includes developing and implementing an iterative awareness raising programme for NCCCS secondary stakeholders. • Includes designing comprehensive training strategy to cover needs of all three components and M&E, as an early project activity. • Includes designing and implementing ongoing climate risk-informed capacity development programme for extension staff.
Enhanced evidence generation is desirable to drive policy advocacy and institutionalization of positive project activities and processes.	• 2.3.1 • 3.2.1	• Includes developing a feedback loop for learning from activities on the ground and designing and commissioning strategic approach to action research (i.e. evidence generation). • Includes developing and disseminate case studies, policy brief, and communications materials, including on CC/FS/GEN/NUT, and further targeted policy advocacy actions. • Policy advocacy for climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system
The **positive outcomes of the nutrition interventions should be expanded and deepened** in phase II.	• 2.2.1 • 2.1.1 • 3.1.1	• Develop materials on climate change/food security/ gender/ nutrition (CC/FS/GEN/NUT) nexus and integrate these into many different activities across all 3 components, as spelled out in detail in the narrative. • Includes holding annual refresher training on CC/FS/GEN/NUT for IACoV stakeholders in the project districts. • Includes supporting innovative methods to encourage climate-resilient and nutritious production and CC/FS/GEN/NUT.

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	• 3.2.1	• Policy advocacy for climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system.
Ongoing awareness raising across all stakeholders is needed, as identified in the National CC Communication Strategy.	• 2.1.1 • 3.1.1 • 3.1.2	• Includes developing and implementing an iterative awareness raising programme for NCCCS secondary stakeholders. • CBPP participatory adaptation planning includes awareness raising on climate risks, livelihood options, and evidence generated from phase I studies. • Includes ongoing AR and training for extension staff and community members on climate-risk informed adaptation technologies.
Deepened social and behaviour change communication (SBCC) on GBV, nutrition and climate change is needed to drive positive change.	• 2.2.1 • 3.1.1, 3.1.2	• Develop materials on climate change/food security/ gender/ nutrition (CC/FS/GEN/NUT) nexus, which integrates GBV, and integrate these into many different activities across all 3 components, including providing detailed sensitisation during the CBPP process. • In addition to advocacy to promote the implementation of policies and practices that reinforce SBCC efforts and provide a supportive environment for addressing GBV, the project will identify the referral pathways and build the capabilities of officers (government and WFP) to sensitize communities on the GBV referral pathways.
Expanded and deepened support is needed across the food system, particularly through enhanced activities to reduce post-harvest loss (PHL), increase aggregation and processing, promote climate-resilient value chains and facilitate market linkages for these and for a range of income-generating activities (IGAs), targeted to different socio-economic groups.	• 3.1.3	• Comprises deepened and expanded support, including Identifying and implementing targeted actions to reduce PHL, integrating IK; supporting targeted IGAs for women, herders, youth, men, disabled, and schools; supporting aggregation, processing, and facilitate linkages with off-takers for beans and sorghum value chains; facilitating linkages to financial services inclusion and enhance business management and development; conducting analysis and implementing focused value chain support for invasive species and a pathway to organic; supporting market days and building on e-marketing platform of MoA to integrate agromet advisories and nutrition-related messaging, for gender-responsive digitalised dissemination; and advocating for development of a Basotho Natural brand.

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Note that the above table is non-exhaustive; however, ~~Some of the key lessons learned from phase I relate to the need for enhanced systems building of the GoL to ensure sustainability of project actions across all three components post-project; the need to adopt a more programmatic approach to capacity development, especially for extension services, and to promote its uptake into GoL systems; the desirability of enhanced evidence generation to drive policy advocacy and institutionalisation of positive project activities and processes; positive outcomes of the nutrition interventions to be expanded and deepened in phase II; the need for ongoing awareness raising across all stakeholders identified in the NCCCS; the necessity of deepened social and behaviour change communication (SBCC) on GBV, nutrition and climate change; and expanding and deepening support across the food system, particularly through enhanced activities to reduce post-harvest loss (PHL), increase aggregation and processing, promote climate-resilient value chains and facilitate market linkages for these and for a range of income-generating activities (IGAs) targeted to different socio-economic groups. T~~The subsequent narrative highlights how lessons learned have been integrated across the components for phase II. Please refer to **Table 9** for a description of the implementation responsibilities of the various stakeholders per project output. Further specific roles, responsibilities and deliverables of each responsible partner will be agreed during project inception and set out in letters of agreement with the GoL.

Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action, and gender-responsive last mile climate services

IACoV-1 focused on strengthening government capacities to generate climate information in relation to drought only and promoting its use to forecast its risks. Phase II will target other climate hazards, namely extreme temperatures and rainfall variability, and will intensify mobilisation for early action, including co-development of tailored climate services for communities.

Under Component 1, institutional capacity and systems will be strengthened to further enhance the accuracy of sub-seasonal to seasonal (S2S) climate forecasting for drought that was developed under phase I and to extend this enhanced forecasting to other hazards, building on the investments of the GEF/UNEP/LMS Early Warning Phase II project. IACoV phase II will enhance the accuracy of S2S forecasting for drought and for cold spells and will develop the impact-based forecasting capabilities of the LMS and other stakeholders for temperature and rainfall to improve climate services. This will be a **key input** into the ongoing development of a national multi-hazard anticipatory action system, as well as into the development of last mile climate services (LMCS) that will be disseminated through a diverse cadre of LMCS disseminators – including youth, comedians, influencers, theatre groups, and school choirs. This enhanced cadre

of LMCS disseminators will have a second purpose of adding more ground/village level coverage for awareness raising and communications (linkage with Component 2 activities).

Community consultations revealed that a range of climatic changes has been observed across the villages in the four districts, namely increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, disruptions to normal snowfall patterns, increased summer temperatures and extremely cold winters. While drought used to occur once every five years with minimal impact, currently the impact is severe, the period is prolonged, and it can occur in consecutive years. Community members highlighted significant challenges to their lives and livelihoods as a result of these climatic changes, as spelled out in Part I above and in **Annex 5**.

Enhanced access to reliable last-mile climate services, packaged with agricultural advice (agromet advisories) is an essential means to reduce these climate risks for smallholder farmers, as it would enable them to manage their planting, pest and disease control, irrigation, and harvesting in a climate-risk informed manner, under Component 3 activities. Enhanced access to seasonal forecasting packaged with agricultural advice provided by the MAFSN, would help vulnerable groups and individuals to identify which crop, out of the range produced, to focus on for a particular season, in order to reduce losses and maximise agricultural income. Access to more accurate forecasts, enabled through impact-based forecasting, would assist community members to plan for and better manage climate risks that impact on other aspects of their lives and livelihoods too. As such, more reliable, targeted and culturally appropriate climate services are an essential element of phase II's risk-layering approach.

Phase I of the IACoV project has been working on research predictability of several climate variables such as the total rainfall for the season and number and the length of dry spells, based on the IRI map rooms and ENACTS datasets to support their field operations. Other variables such as number of wet days, onset, cessation, or length of the rainy season have not been well covered. Temperature forecast capacity building is also vital. Phase II of IACOV intends to enhance temperature and rainfall elements, including some of the Weather Research and Forecasting (WRF) Model output fields for monitoring severe weather within the model's forecasting range: a) the highest 24-hour rainfall total, b) the lowest, and c) the highest temperatures and other fields which are rarely in WRF model output. Overall, these will be useful in predicting flash flooding, heat waves or cold snaps. In addition, consecutive plots of 10-day (dekadal) means can give an indication of the progression of the dry and wet seasons. Snap shots (plots) of a) vegetation fraction, b) leaf area index, c) soil moisture in the layer 0-0.1cm, and d) land use index at an interval of 45 days will show the progression from the relatively wet to the drier part of the year. This represents strategic information for resilience building and adaption activities of vulnerable rural communities.

Thus IACOV II will support LMS to (i) upgrade the existing High-Power Computing System (HPC) with at least four more nodes and an extra 20 TB of storage capacity; (ii) upgrade the existing rainfall monitoring network in the sparsely monitored district of Thaba Tseka, with acquisition, installation and operationalisation of a further 2 agromet and 2 climate stations including 4 rainfall stations; and to (iii) develop climate and meteorological data necessary for S2S forecasts to inform adaptation activities under Component 3. The project will provide technical assistance so that LMS can provide a systematic range of forecasting products to develop localized and targeted agro-meteorological advisories. These will be used to support climate-risk informed field operations under Component 3.

Under phase I it became apparent that clarification of the roles of LMS, which has the overall climate change and climate services function, versus those of DMA, which has the DRR and disaster response coordination functions, was necessary, regarding control of the NCCCS. While sensitisation has been undertaken that the communication under the NCCCS is of a far broader nature than the DRR and EW communication that falls under DMA's purview, ongoing conversations will be needed on the respective roles of LMS and DMA, within the overall climate change landscape of functions. Thus, during relevant activities (e.g. activities 1.1.2.b., 1.2.1.b., 1.3.1.a., 1.2.2.a., 2.1.1.c., 2.1.1.d.) phase II will conduct ongoing sensitisation at different levels, targeting the District Disaster Management Officers (DDMOs), amongst others. As DMA is currently in a state of transition and re-assessing its effectiveness under new leadership, this creates an opportunity to ensure a clear understanding of the respective roles between LMS and DMA, as well as to determine if the DMA draft policy instruments are aligned with the changing realities and increasing disaster risk burden under climate change. The EW Phase II project will help DMA to map and harmonise legal instruments; the project will participate in this process, and ensure regular coordination meetings between LMS and DMA, to enhance the enabling environment.

The design of Component 1 has incorporated the findings and recommendations of the study on climate change perceptions, climate information needs, and local knowledge, beliefs and understanding that was conducted during phase I, including: (i) the need to promote and expedite the implementation of impact-based forecasting; (ii) close operational liaison between LMS and community structures in co-developing climate information services (CIS) and disseminating it broadly; (iii) pioneering the engagement of youth as champions of disseminating CIS; (iv) broadening the reach of weather forecasts; (v) creating feedback-loop platforms such as toll-free numbers, social media avenues and web-based communication platforms that will receive feedback from the end-users of climate services delivered; (vi) addressing identified barriers to the uptake of CIS; (vii) bridging the gap between science and IKS through appropriate community outreach programmes, including under the NCCCS. While several recommendations on integration of IKS

into weather and climate forecasting are beyond the scope of phase II, the project would assist LMS to identify other potential sources of funding for this.

Outcome 1.1: Strengthen institutional capacity and systems to enhance accuracy of sub-seasonal to seasonal climate forecast

Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature

Human resources capacity strengthening and training for LMS: In-house LMS capacities will be strengthened for numerical weather prediction and climate modelling, and specifically for providing systematic S2S forecasts to predict slow-onset climate features and other hazards that could negatively impact the livelihoods of vulnerable groups and individuals. This will involve capacity development for LMS on WRF Seasonal run setup, WRF run scripts, post-processing analysis and Model Evaluation. In addition, the technical conditions will be provided for systematic Medium-Range (10 Days), Extended-Range (1 month) Seasonal-Range (3, 6 months) forecasts, including probabilistic forecasts, based on model ensemble runs. A total of 26 LMS staff (20 men and 6 women) will be trained on providing enhanced and systematic S2S forecasts. The project will provide capacity strengthening to LMS as well as to update the skills of staff on adaptation to climate change and integrating the CC/FS/GEN/NUT nexus, climate risk management, and climate and weather information dissemination. Under Component 2, the PMU technical experts will support LMS to develop skills for development and operationalisation of climate and climate change awareness programmes (implementation of the NCCS).

Upgrade to the HPC and additional AWS: Upgrades to the High-Performance Computing facility (HPC), of at least four more nodes and an extra 20 TB of storage capacity, will be used for running numerical weather prediction (NWP) models and climate modelling, and for storing the database for automatic weather stations (AWSs) which is currently housed on the cloud server. Currently there are only three climate stations and two rainfall stations in Thaba Tseka which covers an area of 4,270 km2. Therefore, it is imperative to increase the number of weather stations within the district, by a further 2 agromet and 2 climate stations including 4 rainfall stations, to fully support generation of tailored climate information for the communities within the district. The AWS will strengthen the current climate monitoring network of LMS by making available real time weather data after every 10 minutes on different variables for daily weather forecasting services such as nowcasting, short, medium and long-range weather forecasts. The data from the stations will be used as an input to the NWP system to be installed in the HPC. The HPC will be used to run high resolution models for timely advisories of extreme weather events, as well as for enhancing the S2S forecasts. The high resolution models that will be installed in the HPC will help LMS to move to providing district-level forecasts.

The AWSs will further help LMS to carry out the activities of acquisition, storage, data visualisation, proactive analysis of information from the network, data post processing, management and dissemination of alarms, statistical analysis, and management of the communication infrastructure. This will assist in managing hazard situations such as thunderstorms, heavy rains, lightning strike, tornadoes, very strong winds, snowfall, extreme temperatures, drought and in general manage weather data. Moreover, the dataset will be integrated into a single database (in the HPC) which will be easily accessed to develop monthly to seasonal climate analysis and predictions for preparedness and better planning of sectors on the expected climate conditions. The data will be analysed to produce tailored climate services and strengthen the capacity of LMS to generate climate information and to promote its use to forecast risks of climate shocks, mobilise early action, and co-develop, with multi-stakeholders, locally relevant climate services for communities (output 1.3.1) to protect lives and property and promote adapting to changing climatic conditions. Farmers and other user groups will use the enhanced climate services developed under Component 1 when planning and implementing their concrete adaptation activities under Component 3.

Activities under Output 1.1.1

Activity 1.1.1.a: Implement systems upgrade for HPC to improve S2S forecast accuracy

Activity 1.1.1.b: Develop and implement capacity strengthening programme for HPC management and operations, including for NWP and climate modelling

Activity 1.1.1.c: Increase AWS coverage in Thaba Tseka district

Activity 1.1.1.d: Design and implement a maintenance package for different types of AWS

Activity 1.1.1.e: Deliver training programme on WRF S2S run setup, WRF run scripts, post-processing analysis and model evaluation

Activity 1.1.1.f: Develop capacities for providing systematic S2S forecasts, including probabilistic forecast predictions based on ensemble model runs

Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services

Some groundwork was carried out in phase I to pave the way for an impact-based forecasting (IBF) system for Lesotho. Through consultant services, climate vulnerabilities and weather risks were mapped through consultations in two project sites and discussions on how to enable effective and realistic communication with different socioeconomic groups

(particularly youth) on forecasts. To further develop the IBF system, under output 1.1.2 the project will firstly map roles and responsibilities of stakeholders, including all key actors in disaster management and mitigation for the IBF system, and then conduct sensitisation and training workshops of key actors on the IBF approach to hazard, risk, and potential impacts. Significant prior capacity building of producers of the IBF system is needed before they would be able to develop the product and disseminate it. Sensitisation and training workshops will allow the key stakeholders, through open dialogue, to identify the hazards, the specific needs of the actors and vulnerable communities for reducing risks resulting from climate-related hazard impact, and to identify the barriers that are currently constraining risk reduction in country. A comprehensive scoping exercise will then be conducted to collect the necessary information for the development of the IBF Risk Information Communication Plan. This scoping exercise would determine, through participatory engagement of all stakeholders already mapped, including vulnerable communities, the type of risk that should be considered, the type of forecasting products/advisories and their packaging as well as the most effective channel for the communications/dissemination and their specific "User interest". After this, support products will be developed on an ongoing basis for systematic delivery of IBF advisories and recommended actions for extension services. LMS and DMA will work closely together to implement output 1.1.2; while LMS will have overall responsibility for the IBF system, DMA will coordinate the dissemination of early warning advisories arising from IBF for **significant hazards** to targeted communities.

The final activities under output 1.1.2 will use the information gathered from the previous activities to develop hazard and impact tables, which identify the hazards (e.g. lightning, hail, low rainfall, high temperatures, low temperatures), cascading hazards (e.g. drought, heatwaves) and the specific impacts of a such hazards, building on preliminary work done by LMS. Based on the hazard and impact tables this activity will review the thresholds and develop the risk matrix and risk maps to highlight areas at risk for which intervention may be necessary, depending on the level of risk. The identified risks will be reduced by the systematic implementation of an Advisory Service for Rural Extension to be offered by LMS and shared through the WFP geospatial platforms, which will be based on following three Protocols: (i) Severe Weather Monitoring Protocol (SWMP); (ii) Dry and Wet (D&W) Seasons Progression Protocol; and (iii) Drought Monitoring Service (DMP) Protocol. The advisories will not include technical guidance for extension practices at farm level but rather to inform on the impending risks of drought, cold spells, etc., and to develop the agromet advisories specified under output 1.3.1. The IBF will be piloted in the project areas with monitoring and feedback to assess and enhance accuracy.

Activities under Output 1.1.2

Activity 1.1.2.a: Identify stakeholders and map roles and responsibilities for the IBF system
Activity 1.1.2.b: Sensitisation and training workshops of key actors on IBF approach
Activity 1.1.2.c: Conduct comprehensive exercise to collect information for IBF Risk Information Communication Plan
Activity 1.1.2.d: Develop systematic approach to IBF risk maps and coordination guidelines
Activity 1.1.2.e: Develop support products for systematic delivery of IBF advisories
Activity 1.1.2.f: Pilot IBF in project areas and refine based on feedback

Output 1.1.3: Enable GoL innovations to generate revenue for sustainability

Climate services revenue generation and sustainability: In addition to scaling up climate services and anticipatory action under Component 1, phase II will pilot support to Lesotho Meteorological Services (LMS) to increase their ability for revenue generation. This is a critical area for sustainability, to reduce dependency on project financing going forward.[113] It is proposed to focus on piloting one innovation: a 'Run for Climate Change' event. LMS organized a similar run in 2022 in the district of Mafeteng, as part of the celebration of World Meteorology Day, which falls on the 23 March each year. While participation in this event was free hence no revenue was collected, there was a good turnout despite logistical challenges. This is a solid indication of the appetite of Basotho to participate in such a race. The are many examples locally, regionally and internationally, of successful races which raise millions of USD per event. ~~LMS has carried out preliminary investigations into holding an ultra-marathon along the lines of the Comrades Marathon held annually in South Africa.~~ These indicate that if supported financially for several years, such a marathon would become self-sustaining and would generate revenue for LMS beyond the project lifespan that would be used to fund ongoing operations. This would require prior agreement with the Ministry of Finance. To promote a holistic approach, activity 1.1.3.a proposes to assist LMS to develop a strategy for innovative revenue generation, which will provide the context within which the race could be held. This is important to prevent a more *ad hoc* approach to piloting the race that would allow for synergies with other LMS possibilities for revenue generation to be optimized. The~~the project will assist LMS to develop a~~ strategy for innovative revenue generation~~, which~~ would include thinking through opportunities for synergies with the proposed Lesotho National Climate Change Fund. After the race has been piloted, it is proposed to implement activity 1.1.3.c, which aims to assist the GoL to develop a joined-up approach to climate change financing, in the light of the implementation of activities 1.1.3.a. and 1.1.3.b. ~~In addition, the project will support implementation of a limited number~~

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[113] One of the most important constraints is the absence of a Quality Management System (QMS); with this in place, cost recovery in meteorological services can mostly achieved. However, this is beyond the scope of the project.

~~of pilots to operationalise the LMS strategy for revenue generation; the feasibility of including aspects of the 'Run for Climate Change' marathon or other events will be investigated.~~ Under activity 1.1.3.c.~~Associated with this~~, the project will thus assist the GoL, under the convening power of the LMS and the NCCC, to develop a joined-up approach to climate change financing, which will include developing and mapping out the synergies between the different international sources of climate finance, the proposed National Climate Change Fund, and facilities like the African Risk Capacity (ARC) that would also assist with sustainability of AA. This policy-level activity will include advocacy for integration of private sector finance into climate change financing, as well as integration of the CC/FS/GEN/NUT nexus into climate action more broadly. Thus, both activities 1.1.3.a. and 1.1.3.c. are essential for a coherent approach to supporting LMS's own revenue generation, to avoid the frequent error in development and adaptation projects of *ad hoc* implementation of isolated pilots that do not deliver ongoing results; these two activities, although relatively light and not resource-intensive, together constitute a key component of the overall sustainability strategy to safeguard the AF investments made through IACoV.

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Activities under Output 1.1.3

Activity 1.1.3.a: Develop LMS strategy for innovative revenue generation

Activity 1.1.3.b: Support implementation of pilot~~s~~ for LMS revenue generation

Activity 1.1.3.c: Assist GoL to develop a joined-up approach to climate change financing

Outcome 1.2: Drought anticipatory action scaled out and development of national multi-hazard AA system supported

Output 1.2.1: Scale out the anticipatory action for drought system to all 10 districts

Under phase I, the IACoV project supported the development of an anticipatory action for drought system in the three southern districts; the project was able to extend this to include developing SOPs for drought in Thaba Tseka district as well. The AA response for drought was triggered in 2023 in response to the severe El Niño; it assisted 25,644 HHs (103 000 beneficiaries) in the four districts of Mafeteng, Mohale's Hoek, Quthing and Thaba Tseka. Based on this successful implementation, phase II will support the scaling up of the AA system for drought to cover the six remaining districts and will support the GoL to develop a road map for a national multi-hazard AA system (output 1.2.2). In scaling up the national drought AA system to cover all 10 districts of the country, the project will equip more DMA staff with skills to develop anticipatory action plans (AAPs) and will re-energize or establish and train the village disaster management teams (VDMTs) and the district disaster management teams (DDMTs) where necessary for anticipatory action. District-level stakeholders such as members of the DDMTs in the remaining six districts have already been involved in validating the drought thresholds for different sectors and developing triggers and actions to constitute the national AAP for drought. The project will support the DMA, LMS and sectoral stakeholders to develop district-level triggers and early actions (the district AAPs) in the remaining six districts, to define the field-level actions for drought in each district.[114] To promote synergies and efficiency, these trainings and sensitisations will include an understanding of LMCS as the ongoing system of providing localised and targeted climate services, while AA is the system that is initiated when a pre-determined threshold is crossed into drought or cold spell. Regarding the benefit of acting early, an after-action review on AA activation/implementation is being conducted for phase I; AA activities in phase II will build on lessons learned through this review. Many requests to scale up the AA response were made by community members in all four of the districts during the consultations process.

Activities under Output 1.2.1

Activity 1.2.1.a: Validate thresholds and develop triggers for AAPs for drought that integrate the CC/FS/GEN/NUT nexus in the six remaining districts

Activity 1.2.1.b: Conduct regular AA lessons learning and refresher training sessions that integrate the CC/FS/GEN/NUT nexus at district and national level

Output 1.2.2: Support development of a road map for a gender-responsive national multi-hazard AA system

To further develop and scale up AA in Lesotho, the project will assist the GoL to develop a road map towards a national AA system on multi-hazards and to leverage funding for the operations of this, building on and consolidating all *ad hoc* AA initiatives such as the IFRC work on cold spells. Activity 1.2.2.a will support the GoL and stakeholders to identify and prioritise the key hazards to be included in the national AA system – for example, extreme temperatures (low and high), strong winds, flooding, etc. Advocacy will be provided during national multi-stakeholder discussions so that environmental sustainability will be mainstreamed into the gender-responsive national multi-hazard AA system. The workshop to develop the road map will advocate for the advisability of the CC-FS-GEN-NUT nexus to be incorporated into Lesotho's

[114] This will be done through a series of district SOP workshops: (i) sensitisation (2 days); (ii) develop district SOPs (3 days); (iii) validate the district SOPs (1 day).

nascent national multi-hazard AA system. This would incorporate advocacy so that gender, protection and inclusion (GPI) analysis is included when developing the national multi-hazard AA system. Cross-component linkages will be optimised so that, for example, any water points developed as part of the AA response are positioned and planned so that they support the sustained operations of the adaptation assets developed under Component 3, as well as adaptation actions implemented under other programmes or projects. Regarding funding and ongoing sustainability, the project will assist the GoL to develop an understanding of and prioritise national government and private sector funding opportunities towards sustainability of the AA system. The study under activity 1.2.2.b. will ensure that additional resources can be mobilized by the GoL during phase II of the project to cover additional hazards through AA that are not covered by the AF investments, which target drought AA. This is important as hazards do not always occur in isolation, and will mean that the AF investment can be efficiently used to promote a holistic approach to AA across hazards. It will also ensure sustainability for AF investments once the project is concluded. It is therefore considered an essential activity of direct and important relevance to IACoV phase II.

Activities under Output 1.2.2

Activity 1.2.2.a: National stakeholder workshop to consolidate experiences and develop road map for national multi-hazard AA system

Activity 1.2.2.b: Study to understand and prioritise national government and private sector funding opportunities towards sustainability of AA system

Outcome 1.3: Communities and vulnerable groups access and use gender-responsive last mile climate services

Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis

Agromet advisories and last mile climate services: The information shared from the IBF output will be used by the Agromet specialists (currently, one under LMS, one in MoA) to produce detailed agromet advisories that include recommended agricultural practices to be undertaken by farmers, supported by extension officers under Component 3 activities, such as irrigation amounts and frequencies, shelter from cold spells, erosion risks that might affect crops, cropping cycles and planting/harvesting dates, crop husbandry, and so on. Capacity building will be required for the agrometeorologists and tools developed to enhance this important activity, with resources for field monitoring to ensure effectiveness. While these agromet advisories will initially be developed by the national-level Agromet specialists and shared on the national geospatial platform for uptake by the Field Extensionists on their field tablets, a participatory process will be initiated for co-development of LMCS (Activity 1.2.3.c) that will broaden capabilities at the district-level for developing and/or fine-tuning agromet advisories, based on the IBF outputs, and that will ensure a feedback loop for field monitoring and learning from community experiences on the ground. The LMCS will be used by farmers under Component 3 activities to adapt their farming activities to reduce the impact of climate risks and to fine-tune their livelihood strategies for longer-term adaptation. The project will also promote the integration of the CC/FS/GEN/NUT nexus into LMCS, as far as is possible. This will be done *inter alia* by ensuring input from Nutrition and Gender specialists from the GoL and WFP into the LMCS process.

IACoV phase I conducted a study on community perceptions and climate information needs that included examining local knowledge and beliefs[115] which will be integrated with the study conducted by LMS and other partners on indigenous climate observations to identify synergies and key recommendations upon which to act. These will be used by the project to ensure that the last mile climate services to be developed are culturally appropriate, integrate local and indigenous knowledge, and are suitably localized, through enhanced accuracy of the forecast and development of agromet advisories and are targeted for all sub-groups. This will include those who are not able or willing to access LMCS on their phones, such as older women and men, those who do not have smart phones, and those who do and would trust these services more, such as male youth. The corps of LMCS disseminators to be supported by phase II should include individuals and groups from all socio-economic, sex, and age groups. In addition to the extension officers and the LMS Observers, LMCS disseminators could include including comedians, youth, theatre groups, school choirs, who will be provided with additional training to play that role (activity 1.3.1.d). They will self-select based on sensitisation conducted under activity 1.3.1.c, during which LMS will lead a process to co-develop with stakeholders (sectors and community members) gender-responsive LMCS in project districts. In terms of enhancing digitalised dissemination of climate services, the project will build on the e-marketing platform of the MoA to integrate agromet advisories. This will be done under Component 3 – please see discussion under output 3.1.3. The focus will be on enhancing gender-responsive digitalised dissemination, to overcome barriers experienced by women in accessing climate services in general and digital services in particular. At a later stage, this could possibly be developed to integrate financial services. This activity will necessitate strong integration between Component 1 and Component 3 activities.

The approach to developing LMCS has been designed to overcome the barriers to the uptake of CIS identified in the study on climate change perceptions, climate information needs, and local knowledge, beliefs and understanding (**Annex 10**), namely (i) ambiguity of climate services messaging; (ii) top-down approach to climate services communication; (iii)

[115] Nobala, T. (2024) Climate Change Perceptions and Climate Information Needs Study on Local Knowledge, Beliefs and Understanding of Climate Patterns and Climate Change in Lesotho. Prepared for WFP Lesotho. June 2024.

silo approaches to climate action and climate information communication; (iv) perceived inherent shortcomings in the accuracy of climate information disseminated; (v) bottlenecks associated with efficient information communication dissemination; (and vi) lack of knowledge of early warning systems.

Activities under Output 1.3.1

Activity 1.3.1.a: Develop capacity at LMS and across sectors at national and district level to co-produce localised and actionable agromet advisories

Activity 1.3.1.b: Develop targeted and ongoing training for LMS Observers to build capabilities for LMCS

Activity 1.3.1.c: Co-develop with stakeholders gender-responsive LMCS in project districts

Activity 1.3.1.d: Identify and capacitate corps of LMCS disseminators, including comedians, youth, theatre groups, school choirs

Contribution of Component 1 to the climate change / food security / gender / nutrition nexus:

- The AA scale out and further development will integrate the CC/FS/GEN/NUT nexus as much as possible, for example in the development and regular revision of the SOPs. AA responses will be nutrition- and gender-sensitive – for example, by supplying seeds that are drought-resistant/early maturing and for nutritious crops – and will aim to build community adaptive capacity for longer-term food security.

- The gender-responsive LMCS will integrate the CC/FS/GEN/NUT nexus by ensuring that advisories and advocacy are provided for production of nutritious food, and for gender-sensitive production methods. LMCS dissemination procedures through local groups will be required to integrate the CC/FS/GEN/NUT nexus.

Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation

The results of the MTR and studies conducted under IACoV I, as well as the stakeholder and community consultations processes to design phase II, have highlighted the need for increased awareness and understanding of climate change, its impacts, and adaption options, at all levels, from the National Climate Change Committee (NCCC) down to villagers; in addition, many options have been identified to promote uptake. Component 2 is designed to build on and deepen the achievements of IACoV phase I, as well as to scale out the reach of the awareness raising and communication approaches. It will result in strengthened awareness of climate change impacts and will formally introduce the climate change – food security – gender – nutrition nexus (CC/FS/GEN/NUT) amongst different sub-groups of vulnerable communities, as well as knowledge of adaptation actions. Formal adoption of this nexus will allow for stronger consideration of the interlinkages between the four elements that have such far-reaching effects on the lives and livelihoods of rural communities, resulting in more effective project implementation that addresses a number of the root causes of vulnerability; it will also promote stronger linkages between the outputs and outcomes and across components, resulting in more integrated implementation.

Outcome 2.1: Strengthened institutional structures and systems at different levels for climate change awareness raising and communication

Output 2.1.1: Strengthened national and district level institutional structures and systems for climate change awareness raising and communication

Under Outcome 2.1, the National Climate Change Communication Strategy (NCCCS), finalised in August 2021 under IACoV phase I, will be updated, integrating key inputs that have been subsequently developed. These include the relevant studies conducted under IACoV: Community climate change perceptions and local knowledge study, and the Climate Change, Food Security and Nutrition Analysis; as well as lessons learned from project implementation. Additional recent relevant studies such as the study on migration, environment and climate change could also be integrated into the revision of the NCCCS.[116] Secondary stakeholders, as set out in NCCCS, who comprise government ministries at different levels, NGOs, faith-based organisations, research institutions, and the private sector, as well as the media, will be provided with additional sensitisation and training to help them understand and implement their roles.

As recommended by the Gender Assessment, the project will create district gender working groups for climate action to encourage inter-sectoral collaboration and participatory approaches, with a clear mandate and areas for decision-making, to promote structural and ongoing gender/climate action beyond the project. These district-level groups should include NGOs and any relevant private sector organisations operating in the area. These will be linked to an existing structure at national level – for example, the National Climate Change Committee (NCCC) – to promote two-directional lessons learning and policy advocacy and provide initial capacity development support. The Ministry of Gender, Youth and Sports (MGYS) and the Police Child and Gender Protection Unit (CGPU) will be included in the structures, for

[116] Adaawen, S., L. Motjotji, B. Schraven and D.A. Serraglio (2023). Mainstreaming Migration, Environment and Climate Change into (Re)integration Initiatives in Lesotho. International Organization for Migration (IOM), Maseru, Lesotho.

ongoing sustainability. The MGYS will progressively take responsibility for coordination of these structures, with support from the Gender focal points of the line ministries.

Innovative approaches to awareness raising will be incentivised at national and district level, building on the related successes under IACoV phase I, and integrating the findings and recommendations of relevant studies such as the community climate change perceptions and local knowledge study, which identifies local practices and indigenous knowledge (IK) of relevance for climate services and climate change awareness raising, and highlights the importance of integrating IK with scientific knowledge for cultural acceptability amongst some of the socio-economic groups. **Annex 10** contains a summary of this study. IACoV phase I implemented a range of innovative approaches to awareness raising in schools, as discussed under Outcome 2.2. Phase II will continue the series of competitions, but with a specified focus on showing the interlinkages within the CC/FS/GEN/NUT nexus, which will be rolled out across awareness raising activities. Competitions will also extend beyond the schools to include non-formal educational institutions and other community groups. The exact scope of each competition will depend on the focus of the competition, within the boundaries of the project's subject matter and activities and will be decided during implementation.

Ongoing training for key institutional structures like LMS and the NCCC will be provided on development and operationalisation of climate change awareness programmes, to accelerate the implementation of the NCCS. Formal skills development will be supplemented by annual awareness raising refreshers for key institutional structures and groups, including LMS and the NCCC; they will be supported to convene a series of seminars on relevant national topics and key issues that arise through the international climate change negotiations, of relevance to the project's scope. National and where necessary regional experts will lead or participate in these seminars, which will be advertised widely. One seminar will be held annually in Maseru, linked to an existing meeting of the NCCC, with a second seminar held in a different part of the country each year, linked to an existing relevant event.

District Climate Change Communication Action Plans will be reviewed to ensure integration of the CC/FS/GEN/NUT nexus and to integrate innovative awareness raising, including with informal institutions. Implementation of the District CCC Action Plans will include more advocacy to all socio-economic groups to adopt climate-resilient practices such as the IACoV initiatives in all the districts. Awareness raising will also take place in the districts through the market days to be held at IACoV sites and subsequently at district market days, as elaborated under Component 3.

Climate change champions from different socio-economic backgrounds e.g. lead farmers, youth, CC/environment clubs at schools, lead herders, etc. will be identified and supported to enhance their capabilities and encourage peer-to-peer learning on locally-relevant climate change impacts and responses. They will play a lead role in demonstrating and disseminating adaptation technologies and approaches in the implementation of Component 3. In addition, the diverse cadre of LMCS disseminators that have been identified and trained under component 1 will be brought together at the village and district levels with the climate change champions to share experiences and fine-tune the project implementation approach for LMCS and CC awareness raising. At a minimum, this will take place through village-level structures as well as at the annual refreshers / training on CC/FS/GEN/NUT for IACoV stakeholders in the project districts. Media engagement and ongoing capacity strengthening on the CC/FS/GEN/NUT will be implemented.

Activities under Output 2.1.1

Activity 2.1.1.a: Update the NCCCS, integrating key inputs and lessons learned, including CC/FS/GEN/NUT[117]

Activity 2.1.1.b: Ongoing training for LMS and NCCC on operationalisation of NCCS with annual refreshers and series of seminars

Activity 2.1.1.c: Develop and implement iterative awareness raising programme for NCCCS secondary stakeholders

Activity 2.1.1.d: Update and fully operationalise District CCC Action Plans

Activity 2.1.1.e: Hold annual refresher training on CC/FS/GEN/NUT for IACoV stakeholders in the project districts

Activity 2.1.1.f: Create district gender working groups for climate action, linked to national structure

Activity 2.1.1.g: Identify and support climate change champions from different socio-economic backgrounds e.g. lead farmers, youth, CC/environment clubs at schools, lead herders

Activity 2.1.1.h: Incentivise innovative approaches to awareness raising on the CC/FS/GEN/NUT through competitions, debates, etc.

Activity 2.1.1.i: Deepen media engagement and ongoing capacity strengthening on CC/FS/GEN/NUT

Outcome 2.2: Raised awareness of scholars on climate impacts and climate change / food security / gender / nutrition nexus

Output 2.2.1: Deepen and scale out teacher training and school climate change activities

Under Outcome 2.2, raised awareness of scholars on climate impacts and the linkages between climate change, food security, gender and nutrition – the CC/FS/GEN/NUT nexus – will be achieved through training of teachers on climate

[117] Note that 'Activity 2.2.1.a: Develop CC/FS/GEN/NUT nexus materials' will be an input into this activity and should therefore be conducted prior to activity 2.1.1.a.

change impacts and responses across all 10 districts of the country. This builds on IACoV phase I activities that furthered the integration of climate change into school curricula and trained teachers in the three southern project districts. Capacity development using the existing teacher training toolkit developed under IACoV phase I will begin immediately in year 1 in the 7 districts not covered by phase I, with the assistance of partners with expertise and presence on the ground. Non-formal institutions, including initiation schools that are important structures for herders, will be targeted for teacher training in all 10 districts. The Lesotho Association of Non-Formal Education (LANFE) is an umbrella organisation for institutions that play a crucial role in providing education outside the formal school system. The LANFE predominantly targets herders and members of society who cannot access formal education due to difficult terrain and poverty. These institutions, which are legally registered, often focus on basic education, practical skills, literacy, vocational training, and adult education. The project will collaborate with the culturally-oriented associations of initiation schools which are not formally registered under the schooling system but are important in promoting adherence to traditional Basotho values. CC/FS/GEN/NUT materials will be developed, as an add-on to the existing teacher training toolkit, and a road show developed and rolled out across schools and other institutions across the 10 districts with sequenced workshops for teachers, followed by school and community events. The CC/FS/GEN/NUT nexus materials (Activity 2.2.1.a) will be developed in such a way that they not only serve as an add-on to the existing toolkit but include materials to be used in the activities of output 2.1.1, as well as being used to develop Component 1 deliverables, including AA plans and response, and locally appropriate LMCS, and for use in CBPP processes under Component 3.

The CC/FS/GEN/NUT materials will include approaches for social and behaviour change communication (SBCC) on GBV, building on and deepening the phase I experience with SBCC on GBV, to be used in Component 3 activities. Climate and Nutrition clubs will be enhanced at schools, building on school environment clubs where these exist, and school-based activities implemented, such as climate-resilient and nutritious food gardens with associated water harvesting, linked to income-generating activities (IGAs) for schools (see Component 3 for activities related to IGAs).

IACoV phase I implemented a range of innovative approaches to awareness raising, including a music competition in Mafeteng in 2022 in which climate change songs were composed and performed by school choirs to raise awareness of climate change adaptation in schools and communities; a maths and science competition in Mohale's Hoek in 2023; and competitions for herders to encourage them to manage their rangelands and wetlands better in 2024. In 2023, debate competitions were held in schools in other districts to Mohale's Hoek. Under phase II, the competition series will be developed to go further beyond the schools' activities, to include more opportunities for herders and youth to be incentivised to raise awareness on climate change and adopt climate-resilient practices.

IACoV phase I has supported development of short films and podcasts involving learners and intends to visit more schools and develop podcasts that explore the extent of learners' knowledge and understanding of climate change, how it has impacted their lives and studies, and their ideas for mitigation and adaptation strategies. This process also aims to encourage learners to become climate change advocates. The final stages of implementation of these activities, not yet complete at the time of developing this proposal, will provide valuable lessons on how to implement similar activities going forward into phase II.

Activities under Output 2.2.1

Activity 2.2.1.a: Develop CC/FS/GEN/NUT nexus materials, as an add-on to the existing toolkit

Activity 2.2.1.b: Train teachers and non-formal institutions on climate change impacts across country

Activity 2.2.1.c: Roll out roadshow on CC/FS/GEN/NUT nexus across country

Activity 2.2.1.d: Support school climate change and nutrition clubs to implement resilience activities

Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy

Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy

Under Outcome 2.3, the project's learning, knowledge management and communication strategy (L,KM&CS) will be developed. This will include a simple reflection template and lessons learning schedule for the project at all levels. Enhanced lessons learning and visibility for IACoV phase II will be promoted. This builds on specific findings of the MTR as well as the results of the stakeholder and community consultations process conducted to design phase II. Building on the experience with action research under phase I, the project will design and commission a strategic approach to action research, led by the KM expert in the PMU, that specifically targets important project elements, such as practical and efficient ways to enhance market access and IGAs for different sub-groups, and the impacts of the project's integrated CC/FS/GEN/NUT approach.

To implement a recommendation of the ICARA Gender Analysis conducted by WFP in 2023 as well as the project Gender Assessment, the project will gather and disseminate gender-related lessons learned. The lessons learned on gender equality and women's empowerment outcomes will be gathered through surveys and more qualitative case studies to build evidence. This will be designed to capture aspects of increased decision making and autonomy, increased opportunity for livelihoods for women, as well as improvements in dietary diversity within the households.

Under Activity 2.3.1.b, the project will design a comprehensive training strategy to cover needs of all three components and M&E, in order to give effect to the programmatic approach to training that has been identified as an essential step to build GoL capacities and systems to ensure sustainability. Developing a comprehensive training strategy that covers all three components as well as M&E, as an early step in the project's implementation, will further promote the harnessing of synergies and efficiencies across capacity development activities. The focus will be on concrete skills development, as opposed to the awareness raising activities that will additionally be performed under Component 2. Implementation of the training strategy will take place under each component.

The project's internal learning system will develop a feedback loop to ensure lessons are learned from community feedback and used continuously throughout the project to refine the implementation approach. The feedback loop will also incorporate learning from the private sector – agricultural buyers, financial services providers, input suppliers – to enable more market-responsive activities and to expand the scale of investors. The feedback loop will strengthen the existing structures and processes of phase I, and will include *inter alia* the following elements and steps:

(i) *Benchmark data collection*: This will begin with collection of baseline relevant data, including weather data, losses assessed, nutrition situation, gender, protection, and inclusion issues, and other metrics, in collaboration with LMS, DMA, MoEF, DA, communities, etc.

(ii) *Regular Data Analysis and Reporting*: This will include analysing the collected data on a regular (quarterly/ as per-need) basis, including key performance indicators, and preparing regular comprehensive reports.

(iii) *Regular Stakeholder Engagement Meetings*: Regular stakeholder engagement meetings will be held through the project structures, involving project teams, research institutions, and relevant government departments, at which the findings from the data analysis will be presented and areas of improvement discussed.

(iv) *Evidence Generation, Documentation and Knowledge Sharing (Throughout)*: This will involve documenting the experience with and impact of the integration of the CC/FS/GEN/NUT nexus, the targeted packages of support for youth and for herders, the effects on gender equality and women's empowerment (GEWE) of the project activities, and other changes made and lessons learned, sharing this knowledge internally within the project team and externally with relevant stakeholders, including research institutions, government bodies, NGOs and private sector.

(v) *Alternative Dispute Mechanism (Throughout)*: The feedback from the alternative dispute mechanism will be integrated into the loop. Concerns raised by project participants will be addressed and resolved promptly. This information will be used to enhance project operations and build trust.

(vi) *Sensitisation Workshops and Training*: Sensitisation workshops and training sessions for community members, project teams, GoL at different levels, and other stakeholders will be organised under various outputs (i.e. outputs 1.1.2, 1.2.1, 1.3.1, 2.1.1, 3.1.1, 3.1.2, 3.1.3), at which insights from the feedback loop can be presented, best practices discussed, and knowledge exchange facilitated to enhance the overall learning process.

(vii) *Peer-to-peer Learning*: In addition to supporting and documenting the Climate Champions approach, exchange visits to IACoV and other centres of excellence will be organised and documented, and the GoL assisted to develop a system to continue with this approach.

(vii) *Continuous Monitoring and Evaluation (Throughout)*: A continuous monitoring and evaluation process will be implemented to track the impact of adjustments made based on the feedback loop. This information will be used to refine the feedback loop itself and ensure its effectiveness over time.

viii) *Adjustments and Modifications (Iterative Process)*: Based on the feedback received and the analysis of data, necessary adjustments and modifications will be made to the project activities, communication strategies, or any other relevant aspect of the project. This could involve refining features or outreach methods.

(ix) *Incorporate Learning into Institutional Processes*: Ensure that key learnings from the feedback loop are incorporated into institutional processes, especially those related to the sustainability of the project's activities. This could involve policy advocacy, GoL systems development, or improvements in project implementation strategies, as covered under the activities of each component.

The Project's M&E system, which is intertwined with the L,KM&C system as the above description of the feedback loop indicates, will track and measure the intended qualitative results of training and sensitisation activities to bring about the desired outputs and outcomes. This will be done primarily through the MTR and the final project evaluation. A methodology including surveys and focus group discussions that allows for gender- and sub-group disaggregation will be developed during inception and integrated into the baseline survey, the MTR, and the end survey, which will be used in the final evaluation as well to provide for consistency and solid evidence generation. A knowledge product will be developed in the form of a policy brief that highlights key lessons learned from the project, which will include whether and how the intended qualitative results of training and sensitisation activities helped to bring about the desired outputs and outcomes.

Communications materials based on lessons learned will be developed and disseminated on an ongoing basis throughout project implementation – for example, as a series of 'Learning in Action' notes. Results-on-walls displays will be developed and updated continuously on IACoV offices at national and district levels. Building on phase I's approach to develop billboards in each project district, this will be expanded to include Thaba Tseka, schools with IACoV activities, and electronic billboards in Maseru. 'Learning in Action' notes and formal findings from M&E will be integrated into case

studies and policy briefs. The lessons learning process will then be linked to policy advocacy, grounded in evidence generated, on ley project activities, to promote institutionalisation of the project approaches by the GoL for sustainability into the future.

Thus, knowledge sharing materials and products will include the following:

- *Workshop and Training Materials* - Educational materials developed for awareness raising workshops and training sessions, facilitating knowledge exchange among project teams, government agencies, communities, and other stakeholders.
- *Learning in Action notes* – Briefing notes developed by project staff and other stakeholders on a regular basis and disseminated on an ongoing basis, including on innovative aspects of the project approach.
- *Video clips* – Videography of success stories, developed throughout project implementation.
- *Results-on-Walls displays* – Wall displays developed and updated continuously on IACoV offices at national and district levels, showing project implementation status.
- *Project billboards* – Information and awareness raising billboards in each project district and in schools with IACoV activities.
- *Electronic billboards* – Regular displays on IACoV progress on electronic billboards in Maseru.
- *Case Studies and Impact Analysis Reports* - Documents presenting evidence generated by project staff and research institutions on the impact of innovative project activities. These reports would analyse and document the project's impact for policy advocacy within Lesotho and for regional and global knowledge sharing.
- *Gender-related lessons learned* – Case study and report analysing the lessons learned on gender equality and women's empowerment outcomes.
- *Fact sheet* - Summarizes the integrated approach of the project, including the CC/FS/GEN/NUT nexus.
- *Policy brief* – Summarizing key lessons learned from the project, including adoption of the CC/FS/GEN/NUT nexus to orientate project activities.

The channels through which these knowledge products will be disseminated internally and externally include the following: (i) GoL and WFP websites and social media; (ii) Stakeholder workshops; (iii) Community activities; and (iv) Global webinars and conferences.

Activities under Output 2.3.1

Activity 2.3.1.a: Develop learning, knowledge management and communication strategy

Activity 2.3.1.b: Design comprehensive traini ng strategy to cover needs of all three components and M&E

Activity 2.3.1.c: Develop feedback loop for learning from activities on the ground

Activity 2.3.1.d: Design and commission strategic approach to action research

Activity 2.3.1.e Develop and disseminate case studies, policy brief, and communications materials, including on CC/FS/GEN/NUT

Activity 2.3.1.f: Conduct policy advocacy on key lessons including CC/FS/GEN/NUT integration

Contribution of Component 2 to the climate change / food security / gender / nutrition nexus:

- All activities under Outcomes 2.1 and 2.2 will either be structured around or will include awareness raising or training on the CC/FS/GEN/NUT nexus.

Component 3: Building resilience through community-based adaptation measures to strengthen food systems

Building on the risk layering and community-based approach implemented under phase I, Component 3 will continue working on **restoring degraded land** through **landscape-based asset creation/rehabilitation both at community and HH level.** Phase II will extend the scale of activities within the three southern districts (scaling up) and will expand the activities to include a new district, Thaba Tseka (scaling out). Aligned with the needs and requests for support from the GoL, community members and other stakeholders, and in response to the MTR findings, phase II will amplify the focus on the following elements:

- **Entrepreneurial opportunities;** associated financial services and business development support, with a **targeted package of activities for youth and for herders**
- **Post-harvest loss** (PHL) reduction through hermetic technology, including the use of **indigenous knowledge**
- **IGAs for women, herders, youth, men, and people living with disabilities**, including off-farm activities
- M**arket access support for specific value chains** and different socio-economic groups

Adaptation activities will be selected in each project site based on the community-based participatory planning (CBPP) process, during which the community members (covering all livelihood groups) will discuss their adaptation needs and

select priority adaptation outcomes. The adaptation menu of options (Table 3) has been developed based on lessons learned from phase I and the cost-benefit analysis of adaptation options conducted during phase I.

Community consultations versus the CBPP process

The community consultations conducted during the design of phase II provided important information on the disaggregated climate-related vulnerabilities in each district, as well as the identified adaptation needs, as summarised in section II.H and documented in detail in **Annex 5**. These have been used to develop the adaptation menu of options (**Table 5** below). Building on these general insights from various socio-economic groups, the CBPP process is carried out early in project implementation to identify specific activities, technical needs, and implementation strategies. This process is more time- and resource-intensive than a simple consultations process. It includes a transect walk, during which the community members, with support from technical experts from government departments, NGOs, or CBOs, assess the actual locations, bill of quantities, work norms, sustainability measures, and other relevant factors for potential activities. Implementing detailed planning through CBPP once a project is approved further assists to avoid consultation fatigue and raising false expectations in the community members. Thus, the key differences between community consultations conducted during project design and CBPP conducted post project approval lie in CBPP's far greater level of detail, technical specificity, accompanying sensitisation, and development of beneficiary agency. CBPP unlocks informed decision making to enable a more focused and effective project implementation. CBPP is thus a powerful tool for empowered participatory planning and knowledge co-creation between community members and service providers. It is implemented to ensure that the right activities are planned for the right people, at the right locations, for the right objectives, and during the right seasons. While the final decisions on specific concrete adaptation activities will be made during the CBPP process, the framework of potential activities has been clearly formulated and is set out in the adaptation menu of options. The adaptation options in the menu constitute concrete adaptation assets, with the project's proposed capacity building and training activities included to enable this participatory development of concrete adaptation assets.

Component 3 is critical for building resilience of vulnerable communities to climate-related shocks and stressors; as well as for strengthening their adaptive responses to ongoing and projected changes in climatic means and future shocks. This enhanced resilience will ultimately reduce the need for humanitarian assistance. This will be done through landscape-based locally appropriate adaptation measures to develop climate-resilient food systems. Component 3 builds upon the experience of phase I and is designed to respond directly to the climate change risks identified during the community consultations, particularly on agriculture, food and water security, and nutrition, as well as to respond to requests from different livelihood groups.

The wetlands and land degradation rehabilitation actions will be implemented within a landscape-based and Integrated Catchment Management (ICM) approach. As with phase I, the synergies with the national ICM programme implemented by the Department of Water Affairs, and supported by the EU, will be harnessed through close collaboration with DWA.

In the phase I project sites that are considered to have graduated, instead of cash-based transfers (CBT) for asset creation, the project team will provide technical support for climate-resilient agricultural and small-scale livestock production technologies, reducing post-harvest losses (PHL), value addition and targeted market access support. These sites will also serve as centres of excellence for community exchange visits across the districts to promote peer-to-peer learning. These exchanges will be documented and will be used to develop a system for the GoL to continue with this approach beyond the lifespan of the project. In the phase I project sites where expected resilience levels have not been achieved for graduation, and in new project sites in Thaba Tseka district, CBT will be provided to poorer and more vulnerable households, as identified through the GoL's National Information System for Social Assistance (NISSA) database, to incentivise asset creation during the lean season. The NISSA database is a single registry or database maintained by the Ministry of Social Development that was launched in 2010 to help the GoL to coordinate social protection programmes, store socio-economic data for targeting, planning and management of functions such as delivery of social payments, case management, monitoring and evaluation of Social Assistance programmes such as Child Grant Programme. The NISSA is regularly updated to enhance the targeting of social protection programmes aimed at reducing vulnerability of the poorest of the poor households and strengthening the responsiveness of social assistance programmes during shocks such as drought.

Under phase II's programmatic approach to training, an iterative extension training programme will be conducted under Component 3 for GoL staff (national and district level). This is necessary to address in a systematic fashion one of the key barriers to implementing and scaling up community-based adaptation identified by community members as well as extension staff themselves, which is the insufficient extension support on up-to-date and localised climate adaptation methodologies. The capacity development for extension staff will include *inter alia* enhanced and recurring training in:

- Watershed and rangeland restoration
- Protection of wetlands and water sources
- Climate-resilient agricultural technologies and short-cycle livestock production
- Agroforestry and soil fertility
- Management of invasive species
- Water harvesting, including household level and community level

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- Climate-resilient fodder production
- Other priority areas identified for enhancing extension capabilities

As one of the earliest steps in project implementation, the project will design a comprehensive training strategy (as set out under activity 2.3.1.b.), to cover the training needs of all three components and M&E roll-out in order to give effect to the programmatic approach to training that has been identified as an essential step to build GoL capacities and systems for sustainability. As noted above, the focus will be on concrete skills development, related to activities needed to fulfil the core functions of the staff members.

Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change impacts

Output 3.1.1: Participatory community adaptation plans developed

Under Outcome 3.1, the GoL will be supported to train additional staff and implementing partners at national, district and community levels through a ToT approach so that they can support communities for local adaptation planning through CBPP. In the three southern districts, this will be restricted to refresher training that will include sensitisation on integrating the CC/FS/GEN/NUT nexus into CBPP. This refresher training will include the key findings from the studies conducted under phase I, particularly those that have generated new knowledge on climate change risks and hazards in the three southern districts. Thus, for example, the Climate, Food Security and Nutrition Analysis, which was completed under Component 1 of phase I in February 2023, includes hazard mapping for six key indices of relevance to the livelihoods and food security of communities of the study area. This is important information as it points to specific risks for the three districts to be considered when advising community members during the CBPPs. In the new project sites in Thaba Tseka, more intensive ToT will be required to develop capabilities of district and local government staff and other stakeholders (traditional authorities and NGOs) to the necessary level. The ToTT across all four districts will include training on the findings of the cost-benefit analyses of concrete community adaptation measures carried out under phase I (see **Annex 9** for a summary of this), as well as on the findings and recommendations of the study to reduce PHL that was finalised in 2022. Each CBPP process will include detailed sensitisation on the CC/FS/GEN/NUT nexus, which will include SBCC on GBV and climate change links. This community mobilization activity will enable meaningful integration of gender, nutrition, protection and inclusion priorities.

Local adaptation planning encompasses the identification, selection, and sequencing of various adaptation activities, through a community-based approach that generates ownership. Community productive assets, such as soil and water conservation structures, and other livelihood resources, such as household vegetable gardens, promotion of fruit trees and drought-tolerant crop varieties, will be selected from the adaptation menu of options (see **Table 3** below) and developed to support climate risk reduction and longer-term adaptation. Smallholder farmers will be assisted to establish market linkages, for sustained income generation, under output 3.1.3. The climate information in the form of enhanced sub-seasonal and seasonal forecasts and impact-based forecasting (IBF) developed under Component 1 will be important inputs into the community-based planning process, with annual seasonal forecast planning meetings allowing for an ongoing process of mutual learning and knowledge co-production between smallholder farmers and climate information service providers, as well as for adaptive management of the community adaptation plans, should this be necessary. The LMCS developed under Component 1 will provide an ongoing source of information for farmers to integrate into their farming planning and activities.

The CBPP process results in the development of community action plans (CAPs) that are valid for a period of three to four years. Even where a locality will be common to phase I and phase II, in the four councils that are common to both phases, the CAPs have already been in place for four years, and will need to be revised in a participatory fashion, to incorporate changing realities (including climate risks and changing livelihood strategies), as well as integrate new knowledge such as that gained from the studies completed during phase I.

Climate-informed~~resilient~~ tree suitability study~~s~~: Community consultations revealed a strong request to build on and continue the work done under phase I with respect to provision of suitable trees to promote enhanced nutrition and adaptation through livelihoods diversification, such as fruit trees and agroforestry, accompanied by enhanced training on tree husbandry. The Department of Forestry confirmed the need for additional support in this regard. Under IACoV phase I, the Ministry of Environment and Forestry through the Department of Forestry did not conduct a feasibility study on suitability of either forest trees or fruit trees for the project sites, but forestry officials followed the standard procedure for tree planting that includes assessing water availability and site ownership, amongst other factors.

However, challenges affecting the survival of trees in Lesotho include the impact of climate change, poor quality seedlings from private farmers selling to the MEF, not matching species to site, lack of protection from livestock, poor management of tree plantations, lack of knowledge on the importance of trees and limited capacity building of farmers. The MEF has a Fruit Trees Suitability Map that was used to evaluate the sites for tree planting, but no comparable suitability study has

been conducted on trees for afforestation and for agroforestry, despite great interest in the latter and its importance for a regenerative agriculture approach.[118]

Thus, under activity 3.1.1.g., the project will conduct a climate-informed suitability study for trees for agroforestry and afforestation, including suitability as windbreaks, and will assist the MEF to review and update the fruit trees suitability map, if necessary, to ensure that this integrates current and projected climatic changes. This activity will further examine whether the Miyawaki micro afforestation technique - for cultivating small fast-growing groves of native plants, with dense, mixed planting intended to simulate the layers of a natural forest – would be feasible in Lesotho. This technique has been used successfully recently in South Africa, with Mzansi Organics, as well as all over the world, including in arid areas, and is designed to be self-sustaining after three years, and to significantly enhance biodiversity. The project will have an initial exchange with South African practitioners on this, and then will pilot this approach at schools, to accompany the promotion of vegetable gardens and other resilience activities. Local private sector will be approached to support initial establishment of these micro forests under their corporate social responsibility programmes. The results of the climate-informed tree suitability study (agroforestry, afforestation, fruit trees) will included in the ongoing capacity development programme for extension officers that the project will develop and implement.

Under IACoV phase I, an approach was developed at district level for integration of community resilience plans with district level development planning and land-use planning. This will be further enhanced under phase II to promote ownership and sustainability of local level adaptation, *inter alia* through consideration of the synergies between the processes initiated by the UNCDF-supported Local Climate Adaptive Living Facility (LoCAL) project, which is promoting climate change–resilient communities and economies via increasing financing for and investment in climate change adaptation at the local level. The LoCAL project has been active in Lesotho since 2020. As for phase I, a detailed overlay of available hazards and vulnerability context for new project implementation sites will be developed, after which community adaptation plans will be developed using the CBPP approach. The hazards and vulnerability overlay will serve as an important input into the CBPP, as will the refined menu of adaptation options and the value chains selected for support, as well as the by-laws (local level) and regulations (national level) developed to ensure sustainability of assets created.

Once the locations for community asset creation included in community adaptation plans have been mapped, detailed environmental and social safeguards screening will be conducted for the previously unidentified sub-projects (USPs), after which an action plan will be developed for implementation of community productive assets, optimising synergies across the districts, and specifying time frames and service provider responsibilities, including MoUs. The project action plan will spell out the necessary training and capacity development required to support the effectiveness and sustainability of the community and household asset creation. Building on from IACoV phase I's successful approach, community and individual asset creation will be supported concurrently, by providing iterative training and necessary inputs.

Activities under Output 3.1.1

Activity 3.1.1.a: Support the GoL to conduct ToTT for CBPP at national, district and community levels
Activity 3.1.1.b: Support emerging governance forum for NRM in Thaba Tseka
Activity 3.1.1.c: Refine approach for integration of community adaptation plans with district planning
Activity 3.1.1.d: Develop overlay of hazards and vulnerability context for implementation sites
Activity 3.1.1.e: Undertake CBPP and develop community adaptation plans
Activity 3.1.1.f: Advocate for district plans to integrate community adaptation plans and mobilise for private sector support
Activity 3.1.1.g: Conduct climate-informed tree suitability study (agroforestry, afforestation, fruit trees)
Activity 3.1.1.h: Map and identify locations for community asset creation
Activity 3.1.1.i: Carry out detailed environmental and social safeguards screening

Output 3.1.2: Community and HH-level nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation

Under output 3.1.2, the project will scale up the implementation of community and household-level productive assets in the three southern districts and scale out this approach to Thaba Tseka. An ongoing capacity development programme for extension staff will be designed and implemented, community asset creation activities implemented as per asset creation action plans compiled under output 3.1.1, and household-level assets supported with training and inputs. During the CBPP process, community members will be facilitated to select their desired adaptation actions from the menu of adaptation actions set out below.

[118] In some areas, there was an observation to include agroforestry practice where fruit trees can be planted along the terraces while crop production is within the field, and forest trees could be planted for windbreaks for the protection of crops, fruit trees and buildings in some schools.

Under output 3.1.1, communities and households will be supported to proactively identify their priority adaptation solutions and to design community-based adaptation plans which respond to their immediate climate change related needs such as food gaps, inability to meet nutritional needs, and limited livelihood sources; while regenerating and enhancing the resilience of ecosystems upon which community livelihoods depend. These household-level solutions and community adaptation plans will be implemented under output 3.1.2, with enhanced extension support. The agromet advisories developed under Component 1 by the national-level Agromet specialists are a key input to Component 3 and will be disseminated on an ongoing basis by the extension staff, as well as by the corps of LMCS disseminators capacitated through the participatory process initiated for co-development of LMCS under output 1.3.1.

Table 3 sets out the menu of adaptation options that represent the best solutions, based on lessons learned during phase I, to ensure that the assets created represent the most appropriate choice of technology, allowing for the desired ecosystem restoration/regeneration, production, and storage to enable increased marketing outputs (under output 3.1.3) while being fully mastered and maintained by villages and households themselves. The menu of adaption options is consistent with the typology of adaptation options[119] developed under the Climate, Food Security and Nutrition Analysis study conducted for the three southern districts under phase I, as well as with the findings of the economic analysis of adaptation study – see **Annex 9** for a summary of this. The study highlighted that the benefits of communally owned activities largely outweighed the costs – see section II.C for a discussion of cost effectiveness. Community members mentioned that through management of rangelands, they enhanced livestock productivity and production. Through communal orchards, they were able to dry fruits and sell them; harvesting and harnessing of water through earth dams and spring tanks have helped community members with water provision for multiple purposes.

The adaptation options address a range of critical problems identified by community members during the consultations. These include the need for enhanced knowledge of and technical support on climate-smart agricultural technologies, more attention needed on water harvesting, resilient varieties, vegetable and fruit tree production and resilient small livestock varieties to reduce the impacts of climate change on food and nutrition security in the targeted areas. Enhanced support to homestead farming is needed so that it can provide greater dietary diversity and provide women with income-generating opportunities; securing village water supply for communities in the drought prone southern districts; and others set out below. The range of integrated watershed management (IWM) activities for restoration and rehabilitation of degraded land and wetlands underpins these activities, to promote the recovery of the natural resource base.

The asset building approach will also include strong gender and age analysis to ensure that asset creation benefits all community members, and in particular those who are the most vulnerable. As for phase I, where people living with disabilities are identified as vulnerable but not able to participate in community asset creation exercises such as gully restoration or road rehabilitation, alternates or household members will be able to participate in their place, to ensure that these individuals benefit equitably from the project.

In addition to responding to lessons learned during phase I implementation, the adaptation menu of options responds specifically to the district and community needs raised during consultations. For example, in Thaba Tseka district, women and female youth noted the need for support to vegetable gardening through climate-smart approaches such as keyhole gardens and for support to poultry keeping and small stock, to help to address the very low levels of dietary diversity. Across the districts, apart from those who had already benefited from phase I interventions, women indicated that dry spells result in water shortages and depletion of fuelwood, which forces women and girls to travel long distances to fetch water and fuelwood. Women requested additional income generation opportunities such as food preservation and processing, while herders felt that beekeeping could be an appropriate form of IGA for them, as well as briquette making from animal dung. Specific activities targeting youth (see below) have been included to address issues raised by youth participating in the consultations, who indicated that as result of climate change, they are forced to migrate to urban areas or to South Africa to find job opportunities; many, however, do not wish to migrate and have an appetite for further skills development for climate-resilient livelihoods in their villages and surrounding areas.

Table 53. Community and household adaptation menu of options phase II

Category	Details	Indicative activities/ Modality	Targeting
Restoration and rehabilitation of degraded rangeland and wetlands in Mafeteng, Mohale's Hoek, Quthing and Thaba Tseka	Hillside terraces Stone bunds Diversion weirs Gully reclamation Rangeland rehabilitation, brush control and reseeding, fire breaks	- Based on existing Land Cover Atlas, identify and rehabilitate key wetlands in all project districts - Implement land reclamation activities – e.g. construct burrigates along gullies to reduce erosion - Plant beneficial indigenous trees, plants and grasses on the burrigated land in the gullies	Entire community

[119] Marake. MV., Mosiuoa. B., Browne. M., Lewis. F., Quayle. L. 2023. Typology of Adaptation Options and Adaptation Intervention Concept Notes Report. Climate, Food Security and Nutrition Analysis in selected Community Councils of Mafeteng, Mohale's Hoek and Quthing Districts, Lesotho – Technical Report Volume 6B. A report to the Improving Adaptive Capacity of Vulnerable and Food Insecure Populations in Lesotho (IACOV) project.

	Afforestation Footpaths Infiltration dishes, eyebrow and half-moon basins, gully reshaping	- Implement complementary sensitization /education programmes to capacitate community members on land degradation and adaptation	
Homestead farming	Support to household vegetable gardens Promotion of indigenous vegetables Promotion of indigenous medicinal plants	- Facilitate field demonstrations of household gardens (including a range of nutritious vegetables such as beetroot, carrots, spinach, indigenous vegetables) at ARCs - Based on result of value chain study, implement findings to promote indigenous and medicinal plants - Include the above in the training of extension officers	Primary target is women, who are generally engaged in household-level production Market-links opportunities for women and youth will be promoted
Drought-resistant and heat-tolerant crops and climate-smart agriculture	Promotion of drought-resistant and heat-tolerant sorghum and beans in the project districts Agroforestry, crop rotation, intercropping Compost production, mulching and crop residues management Promote fodder species to increase soil fertility Promote integrated pest management (IPM) Promote conservation agriculture (CA)	- Facilitate accessibility of drought-resistant and heat tolerant varieties - Train extension services on ongoing basis on CSA technologies - Provide demonstrations of agroforestry, crop rotation, intercropping, CA, mulching, etc., at ARCs (MAFSN) - Facilitate peer-to-peer learning - Identify and facilitate access to climate-smart fodder species - Provide training on IPM, project to provide assets e.g. bait traps - Support associated IGAs (e.g. compost making, fodder production) for targeted groups (Output 3.1.3)	Open to all, 60 percent of project beneficiaries will be female Market links for sorghum and beans will be promoted through value chain study and other activities in Output 3.1.3 Associated IGAs will target women, female youth, male youth, and men
Climate-resilient small stock	Improved indigenous chickens Pigs Dairy goats	- Support DoL to supply improved indigenous chickens and dairy goats - Train women and female youth on small stock husbandry - Facilitate access to veterinary advisories and services - Promote production of local farm feeds for small livestock	Small livestock provision and training will predominantly benefit women and female youth. All community members will benefit from nutritional outcomes
High-value tree production and bee-keeping - promotion and improvement of this	Feasibility study has been carried out on high-value trees but needs to be updated to include agroforestry; support and market links will be provided based on that	- Update feasibility study carried out by DoF and identify suitable trees - Revitalise district nurseries and provide support (e.g. seedlings, advice and tools) based on feasibility study - Training on tree planting and care and provide inputs - Facilitate market links based on recommendations of value chain study - Training on methods for commercial beekeeping - Acquire materials for beekeeping (bee hives and protective clothing)	Fruit tree production linked to household gardens will be targeted at women and female youth Beekeeping specifically targets herders (males and male youth)
Community water development for small-scale	Household water harvesting (roof) Family drip irrigation system	- Provide support for household water harvesting - Provide drip irrigation kits and relevant training - Develop micro ponds	Household water harvesting targets women, would benefit entire household

irrigation and domestic use	Low-cost micro ponds for livestock (no larger than 10mX10m, with 2m max. depth) Rehabilitate and protect wells Protect water resources e.g. from livestock Sand dams for irrigation and potable use	- Rehabilitate and protect wells - Protect water resources e.g. from livestock - Construct sand dams under supervision of MEF and supply solar panels with pumps where necessary - Sand dams are typically 1 or 2 metres wide at the bottom, tapered, and 1 or no more than 2 m high	Livestock drinking points targets herders and livestock owners, benefits to entire community Sand dams benefit entire community
Climate-resilient infrastructure: access roads, PH structures, and structures for aggregation	Access roads to villages to facilitate market access PH structures using IK Small-scale storage structures for aggregation	- Enable environmentally-sound and climate-resilient access road construction / rehabilitation using CBT in new sites in Thaba Tseka - Identify good local practices and train women, youth and men on small-scale climate-resilient post-harvest structures for storage and aggregation - Enable environmentally-sound and climate-resilient small-scale aggregation structures	Access roads are a communal activity PH structures target women, youth and men Small-scale aggregation structures target farmers' groups (women, men, female youth, male youth)
Food preservation and processing	Tarpaulins, grain stores, solar-powered dryers, etc.	- Provide training for simple food preservation and storage at community level and supply inputs (tarpaulins) - Support food processing - Supply solar-powered dryers to interested groups and train them on use and maintenance	Any interested groups Specific opportunities for youth entrepreneurship will be supported
Fuel-efficient stoves and heat retention bags	Provide fuel-efficient stoves and training on their use	- Create platforms for dialogue and discussion to promote uptake of fuel-efficient stoves - Provide training for construction of fuel-efficient stoves and heat retention bags	Primary target is women, who will benefit from reduced workload gathering wood
Fish farming	Support small-scale fish farming (planned ponds no larger than 10mX10m, with 3m max. depth)	- Agree locations and provide training - Construct fishponds and provide inputs and ongoing support	Community at large will benefit, but will target vulnerable youth and women

To ensure sustainability of the technologies adopted, relevant capacity will be built and linkages established with accessible service centres for maintenance, repair and replacement. During the CBPP, communities will agree implementation details for the assets to be developed at community level, including prioritisation, location, tenure, maintenance, and required technical support. In order to reduce climate vulnerability across the breadth of the food system, issues such as production, post-harvest handling practices, techniques and storage, processing and consumption will also be supported under Output 3.1.3. IACoV phase I supported the establishment of bylaws for management and protection of rehabilitated lands and wetlands and will continue with this process in phase II, which is seen as an important element of sustainability. For supply of solar technologies, the project will follow the same approach as phase I, which is to collaborate with a local vocational school. The BETHEL business and community development centre innovates locally appropriate and easily maintained solar systems and trains local technicians and community members on the installation and maintenance of solar systems. Dedicated community sub-groups are established for maintenance of the solar systems, which is ensured through income gained from sale of increased, climate-resilient agricultural production. Please see **Annex 12** spelling out sustainability provisions across all concrete outputs in terms of social, environmental, institutional, economic and financial sustainability.

~~Climate-resilient trees: Community consultations revealed a strong request to build on and continue the work done under phase I with respect to provision of suitable trees to promote enhanced nutrition and adaptation through livelihoods diversification, such as fruit trees and agroforestry, accompanied by enhanced training on tree husbandry. The Department of Forestry confirmed the need for additional support in this regard. Under IACoV phase I, the Ministry of Environment and Forestry through the Department of Forestry did not conduct a feasibility study on suitability of either forest trees or fruit trees for the project sites, but forestry officials followed the standard procedure for tree planting that includes assessing water availability and site ownership, amongst other factors.~~

~~However, challenges affecting the survival of trees in Lesotho include the impact of climate change, poor quality seedlings from private farmers selling to the MEF, not matching species to site, lack of protection from livestock, poor management of tree plantations, lack of knowledge on the importance of trees and limited capacity building of farmers. The MEF has a Fruit Trees Suitability Map that was used to evaluate the sites for tree planting, but no comparable suitability study has been conducted on trees for afforestation and for agroforestry, despite great interest in the latter and its importance for a regenerative agriculture approach.[120]~~

~~Thus, the project will conduct a climate-informed suitability study for trees for agroforestry and afforestation, including suitability as windbreaks, and will assist the MEF to review and update the fruit trees suitability map, if necessary, to ensure that this integrates current and projected climatic changes. This activity will further examine whether the Miyawaki micro afforestation technique - - for cultivating small fast-growing groves of native plants, with dense, mixed planting intended to simulate the layers of a natural forest – would be feasible in Lesotho. This technique has been used successfully recently in South Africa, with Mzansi Organics, as well as all over the world, including in arid areas, and is designed to be self-sustaining after three years, and to significantly enhance biodiversity. The project will have an initial exchange with South African practitioners on this, and then will pilot this approach at schools, to accompany the promotion of vegetable gardens and other resilience activities. Local private sector will be approached to support initial establishment of these micro forests under their corporate social responsibility programmes. The results of the climate-informed tree suitability study (agroforestry, afforestation, fruit trees) will included in the ongoing capacity development programme for extension officers that the project will develop and implement.~~

Ecological approaches to agriculture: In line with the MAFSN policies on sustainable and climate-smart agriculture, the project will support climate resilient agricultural technologies and good agricultural practices (GAPs) to promote low-external input sustainable agriculture. Agroforestry will be promoted as a key element of regenerative agriculture, as it helps to regenerate topsoil, reduce soil and water loss, retain moisture content and increase biodiversity, as well as soil and water conservation techniques, crop rotation, use of animal manure and compost, integrated pest management (IPM). In many parts of the targeted areas, production is *de facto* organic, with very little external chemicals applied.[121] The project will not foreclose options and price premiums that may lie in the future with respect to certified organic production but will promote ecologically sustainable approaches such as the increased and enhanced use of organic fertilisers and pesticides to nurture and protect crops and vegetables and to increase yields, as well as soil and water conservation methods as set out in the adaptation menu of options. Specific attention will be paid to reducing the impact of birds on sorghum fields, including through scaling up successful local responses in conjunction with the action research commissioned under Component 2. Community members will be trained to produce and use organic fertilizer and to cover the soil to maintain soil water and increase organic content, as is done with conservation agriculture and in keyhole gardening. Where value chains are further developed for invasive species such as rosehip (see output 3.1.3), nearby sites will be monitored for control to ensure that the invasive species are not being propagated.

Water access and water harvesting: The MTR recommended that water harvesting structures for climate smart interventions be improved in the model sites at Quthing and Mohale's Hoek districts and that such sites be used as learning centres for other communities. IACoV phase I has subsequently constructed four sand dams at different sites, including the model site at Lithakaling, where solar panels have been installed to pump water up from the site. Sand dams are typically 1 or 2 metres wide at the bottom, tapered, and 1 or no more than 2 m high. They represent a powerful near-term intercession for restoring hydraulic conditions in Lesotho's degraded watersheds – please see page 169 in **Annex 7** for further details. While IACoV phase I project has prioritised women's access to resources needed to enhance agricultural productivity, this approach needs to be extended in some of the project sites, for deeper impact, and to be scaled out into the new areas, particularly in Thaba Tseka. Regarding water for agricultural production, the IACoV phase II will promote structured assessments of water availability gaps and provide training of farmers, especially of women, youth, and herders, on the application of sustainable, low technology water harvesting and soil moisture systems that address their needs. Activities will include household water harvesting (roof) where possible, including for schools, family drip irrigation systems, low-cost micro ponds for livestock, rehabilitation and protection of wells and water resources e.g. from livestock, and sand dams for irrigation and potable use.

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Climate-resilient small stock: The project will build upon lessons learned in phase I and will enhance the efforts of poultry farming by smallholder farmers. It will help to promote indigenous chicken rearing by rural households and support the Department of Livestock Services (DLS) with characterization of the indigenous chickens and with providing incentives to those individuals that still have them. The project will support the DLS in improving the traits of the same chickens while preserving the default character, through a desk review of available studies to inform the processes. The project will support feed production and fowl feed mixing as a possible area for entrepreneurship for interested groups. Dual purpose chickens to be provided to households, with capacitation of farmers and extension workers to ensure proper management of the chickens. The project will also support dairy goats along similar lines, as this is important to provide alternative livelihood sources as well as to help curb high levels of malnutrition. Linkages will be facilitated to enhance

~~[120] In some areas, there was an observation to include agroforestry practice where fruit trees can be planted along the terraces while crop production is within the field, and forest trees could be planted for windbreaks for the protection of crops, fruit trees and buildings in some schools.~~

[121] The latest Intergovernmental Panel on Climate Change (IPCC) assessment emphasised the need to expand organic agriculture for multiple benefits: reducing GHG emissions from agriculture, improving soil fertility, promoting biodiversity and enhancing grassroots adaptation.

access to veterinary advisories and services. Small-scale fish farming will be promoted in Thaba Tseka, based on the recommendations of the DLS and requests from community members, under strict environmental safeguards as detailed in the ESMP (**Annex 7**).

Promotion of climate-resilient varieties: The project will support drought-resistant and heat-tolerant crops and climate-smart agriculture by facilitating accessibility of drought-resistant and heat tolerant varieties (vegetables, indigenous vegetables, fruit trees, crops, fodder) to farmers, train extension services on an ongoing basis on climate-smart agriculture technologies, provide demonstrations of agroforestry, crop rotation, intercropping, conservation agriculture, mulching, integrated pest management (IPM), etc., at the Agricultural Resource Centres (ARCs) found across the districts and through supporting champion farmers to facilitate peer-to-peer learning. The project will identify and facilitate access to climate-smart fodder species and support interested groups to produce and sell this. Drawing on the experience of phase I, a range of nutritious vegetables will be promoted, including beetroot, carrots, spinach, and indigenous vegetables.

Regarding the main climate-resilient crops to be promoted through targeted value chain support (output 3.1.3), stakeholders have agreed, based on value chain analysis and lessons learned during phase I, to focus on beans and sorghum. There is strong market demand for both beans and sorghum, both of which were identified as priorities for support in the value chain analysis (VCA) carried out under phase I. The validity of the decision by stakeholders during design of phase II to focus VC support on beans and sorghum is supported by a recent crop suitability study for Lesotho which found that sorghum is likely to be better adapted to Lesotho's near-term climate conditions than maize; thus, research and development is required to identify the most locally appropriate cultivars to promote as a climate-resilient cereal alternative to maize; and encourage a change in dietary preferences, cooking recipes and farmers' perceptions of the crop.[122] Both Mafeteng and Thaba-Tseka are predicted to benefit from increased average suitability for sorghum, while Thaba-Tseka may additionally experience an expansion in suitable area. While there are predicted negative changes to production of beans going into the future, it is likely that beans will be comparatively more resilient than crops such as maize. This, combined with their high nutritional value and positive effect on soil fertility means that beans, and other leguminous crops, will therefore remain a useful option for climate-resilient farming systems.[123] While there may be moderate increases in production area of rainfed wheat across the country, in practice, the majority of winter wheat production would need to be cultivated with supplementary irrigation; given the water availability challenges, wheat will not be promoted as a key value chain for the project.

Nutrition Clubs: Building on the approach adopted by phase I, activities to enhance knowledge on diets and nutrition will be delivered through MAFSN-coordinated Nutrition Clubs, through nutrition education and demonstrations on production, processing, cooking, food safety and storage.[124] Members of the clubs include women, men, youth, people living with disabilities. They engage in activities such as nutritional education, practical demonstrations (e.g., cooking classes), and support for agricultural practices (e.g. community gardens). The project will revitalise existing or facilitate the creation of new Nutrition Clubs to improve homestead production and diet diversification and will scale up the Nutrition Clubs in the four project districts to cover all as many communities as possible, integrating the CC/FS/GEN/NUT nexus in nutrition training delivered by the MAFSN's own Area Technical Nutrition Officers, who are already working in the District Agricultural Offices (approximately 40 staff countrywide).[125] IACoV phase I provided guidance on governance and financial management to the nutrition clubs and distributed resources such as seeds, tools, and educational materials. Under IACoV phase II, continuous training will be provided versus the once-off training to ensure that members can effectively manage their activities and adapt to new challenges where clubs exist. The project will offer regular advisory services to help clubs with legal, financial, and operational issues.

The project will support innovative methods to encourage climate-resilient and nutritious production and CC/FS/GEN/NUT, such as developing and demonstrating recipes using locally produced climate-resilient and nutritious ingredients through celebrity chefs and cookery competitions. Additionally, it will fund additional education material for community training, food preparation, and other demonstrations, as well as further training for the Area Technical Nutrition Officers to strengthen their expertise on the CC/FS/GEN/NUT nexus. Male engagement on nutrition and dietary diversity programming will be deepened, as requested by men and women during the community consultations, as, in many households, women migrate to find work leaving men in charge of childcare. Herders will also be included in the nutrition programming, with nutrition messages delivered alongside rangeland and grazing management training and support to IGAs for herders.

[122] Hunter. R., Crespo. O., Coldrey, K, Cronin, K, New, M. 2020. Research Highlights – Climate Change and Future Crop Suitability in Lesotho. University of Cape Town, South Africa, undertaken in support of Adaptation for Smallholder Agriculture Programme' (ASAP) Phase 2. IFAD, Rome.
[123] Hunter. R., Crespo. O., Coldrey, K, Cronin, K, New, M. 2020. Research Highlights – Climate Change and Future Crop Suitability in Lesotho. University of Cape Town, South Africa, undertaken in support of Adaptation for Smallholder Agriculture Programme' (ASAP) Phase 2. IFAD, Rome.
[124] The nutrition clubs are set up in alignment with policies and regulations provided by the MAFSN and are registered as legal entities such as associations or cooperatives with support from the MAFSN and projects like SADP. This formal registration is crucial for their sustainability, as it grants them legal recognition and the ability to engage in formal agreements, access funding, and receive other forms of support.
[125] The MAFSN's Nutrition Unit currently promotes nutrition through a positive deviance model (a well-tested approach to behavioural and social change based on the observation that in any community there are people whose uncommon but successful behaviours or strategies enable them to find better solutions to a problem than their peers, despite facing similar challenges) combined with nutrition training, food demonstration activities, and promotion of keyhole gardens. While the approach has been successful, it has not reached all communities due to limited operational funds.

Under Component 2, the project will also target children in enhanced training on CC-FS-GEN-NUT linked with WASH, given that, especially in the remote areas of Thaba Tseka, like Setoetoe and surrounding villages, knowledge barriers in this regard are substantial. The project can make a sustainable investment if children are included in the enhanced educational and awareness raising activities. Existing WASH clubs in some schools will provide a good entry point to integrate climate change and interlinkages with health, nutrition, and gender issues; in areas where such platforms do not exist, collaboration can be made with NGOs and government sectors and capacity building can be implemented for teachers, parents, and community leaders to support these initiatives. As the project will train teachers and non-formal institutions on the CC-FS-GEN-NUT nexus and support a roadshow on this under Component 2 , the related activities (activity 2.2.1.d and activity 3.1.2.i) will be implemented in a fully integrated way across the components. The project will also leverage on the work carried out by the Lesotho National Olympic Committee for HIV education, through interactive and engaging programmes that use sports, games, or arts to teach children about climate change, nutrition, hygiene, and other critical topics. These programmes can make complex issues more accessible and memorable for children.

National and district seed banks: Under phase I, the Department of Agricultural Research was supported to re-establish a seed bank for climate-resilient varieties, including indigenous vegetables and indigenous medicinal plants, and to multiply suitable species. Under phase II, this support will be deepened and extended to support a district-level seed bank in Mohale's Hoek, and to enable capacity development for tissue culture propagation techniques, so that sufficient volume of locally-adapted climate-resilient varieties can be assured (activity 3.1.2.e). The national seed bank in Maseru will be supported with tissue culture capabilities and solar power will be installed as a back-up plan to ensure reliable operation of the cold rooms. In Mohale's Hoek, a collection hub will be established to support the seed bank system. Depending on further discussion with the MEF and the MAFSN, the project might supply solar panels for back-up electricity supply and could assist the GoL to leverage in additional funding to establish a fully-fledged seed bank with cold rooms. Developing the seed bank system with solar back-up is a priority for the MAFSN and MEF; the project will provide strong advocacy to ensure that the GoL institutionalises sufficient budget for ongoing maintenance of these assets. As for all assets, an implementation agreement will be developed that spells out roles, responsibilities, and budget to be allocated for ongoing sustainability. Additionally, the seed bank system will be connected with the national AA system (Component 1) for timely and climate-resilient localized seed production. Linkages between Agriculture and Forestry will be optimised in the development of the seed banks, so that both functional areas benefit from them. In addition, the district tree nurseries will be revived by providing them with staff capacity development and inputs (activity 3.1.2.f).

Ongoing and systematic capacity development to enhance extension services: The MTR findings of inadequate technical oversight to project interventions and many transfers of extension staff at the district level underline the importance of enhanced, ongoing capacity development for extension staff. These issues, coupled with inconsistent monitoring of activities at the field level, were leading to inadequate quality of some of the adaptation assets created. A finding of the WFP Country Strategic Programme (CSP) evaluation conducted in 2023 stated that there was limited evidence that climate change concerns were integrated into IACoV phase I implementation with respect to the choice of assets created, types of seeds distributed, etc. Several positive steps have been taken since then to turn this situation around, including additional support for training of extension staff and improved field monitoring. The GoL is currently undertaking a large drive to increase the number of extension staff, with 100 positions recently advertised for agriculture and livestock extension staff, to fill gaps in the support structure, but will require additional support to ensure that capabilities are enhanced as soon as possible. Thus phase II of the project will assist the GoL to design and implement an ongoing capacity development programme for rural extension staff across key sectors related to the project's activities – agriculture, livestock, forestry, land restoration and environment. This will ensure that staff are trained on an ongoing basis on climate-resilient approaches and technologies so that they can provide better and up-to-date advice to vulnerable community members. Extension training will be designed and implemented to integrate the CC/FS/GEN/NUT nexus, as well as the relevant findings of the key studies completed under phase I. The project will provide a limited number of laptops and tablets to the Agricultural Resource Centres (ARCs) where needed, to support more effective and efficient extension services and monitoring of project activities.

Promoting peer-to-peer learning: The project will implement several approaches to promote peer-to-peer learning, building on best practice from IACoV I and other projects, including: (i) Identifying and supporting **climate change champions** from different socio-economic backgrounds e.g. lead farmers, youth, CC/environment clubs at schools, lead herders (output 2.1.1). (ii) **Community exchanges** that go beyond the project leadership and allow several days in the community visited are good practice examples. IACoV I has already facilitated cross-community exchanges for example to the centre of excellence at Lithakaling in Mohale's Hoek, and is exploring exchange learning for community members interested in commercial fruit production e.g. to the World Bank funded intervention at Likhothola Farm large orchard in Mahobong, Leribe district, which has good practice on quality standards and exports to South Africa. There are also Chinese vegetable production good examples for community exchanges. (iii) Facilitating linkages with farmer field schools implemented under other projects e.g. SADP II. (iv) **Market days** held at IACoV project sites, as an initial step to preparing farmers to participate in the district market days.

These steps represent a fledgeling approach to knowledge co-production for extension in the districts that will be further discussed and elaborated through the district extension teams. The project will involve successful commercial farmers

in these discussions, who are not IACoV beneficiaries but who have been identified by the extension officers as having far more knowledge than them of climate-smart agricultural technologies.

The project will develop and implement specifically targeted packages of interventions for youth and for herders that extend across the components. Youth-focused activities address the MTR finding that more active involvement of youth as owners and not caretakers on behalf of their elders should also be considered, as well as requests from female and male youth during the community consultations. Ensuring additional participation in and benefits from the project for herders was a strong recommendation from stakeholders and from herders themselves.

The targeted package of adaptation interventions for youth across the three components will include increased and iterative awareness raising on climate change and its effects; building understanding of and ability to participate in anticipatory action and last mile climate services, including digitalised services; sensitisation on nutrition and GBV; enhanced adaptation capabilities and associated IGAs of interest to youth such as vegetable production through keyhole gardening, organic compost making, value-addition to invader species gathered e.g. rosehip, etc.; market access facilitated for selected value chains; and youth-oriented business development support and access to credit for entrepreneurial activities. During the CBPP process, the project will identify further opportunities to engage female and male youth in IACoV phase II and will pilot individual and entrepreneurial climate adaptation activities that are attractive to the youth, as well as advocate for them to participate in leadership opportunities within the project structures. Specific opportunities, for example in the realm of food drying and processing of more drought resistant and highly nutritious indigenous vegetables and beans, and those related to apiculture, would be discussed during the CBPP with youth in each community council, and a strategy developed to assist female and male youth with livelihood development.

The project will include a targeted package of adaptation interventions for herders across the three components. Herders have been identified as highly vulnerable and play an important role in rangeland management, which is increasingly significant for phase II of the proposed project in the new district of Thaba Tseka. The package for herders will include increased and iterative awareness raising on climate change and its effects; sensitisation on nutrition and GBV; enhanced adaptation capabilities for good rangeland management (together with the owners of the livestock herds), including fire management and firefighting, wetland protection, rotational grazing; specific IGAs such as briquette making from manure and beekeeping, linked to market access; climate-resilient livestock shelters; and understanding of and ability to participate in anticipatory action and last mile climate services. Individual herders will be included in the climate champions group that the project intends to nurture.

To address community needs in an integrated fashion, the project will mobilise partners such as Unicef and World Vision to develop WASH interventions in conjunction with asset creation in the project sites, particularly in the new district of Thaba Tseka, where WASH support is sorely needed in the more remote project sites. Existing WASH clubs in some schools will provide a good entry point for children to understand the interlinkages of climate change with health, nutrition, and gender issues; where WASH clubs do not exist, the GoL and NGOs can collaborate to provide capacity building for teachers, parents, and community leaders to support these initiatives. The activities will be implemented in a fully integrated fashion with Component 2's training of teachers and non-formal institutions on the CC-FS-GEN-NUT nexus and related country-wide roadshow. The project will leverage on the work of the Lesotho National Olympic Committee on HIV education through interactive and engaging programmes that use sports, games, or arts to teach children about climate change, nutrition, hygiene, and other critical topics.

Activities under Output 3.1.2

Activity 3.1.2.a: Develop project action plan for implementation of community productive assets

Activity 3.1.2.b: Design and implement ongoing climate risk-informed capacity development programme for extension staff

Activity 3.1.2.c: Implement community asset creation activities as per asset creation action plan

Activity 3.1.2.d: Support household-level adaptation actions with training and inputs

Activity 3.1.2.e: Support the further development of national and district seed banks

Activity 3.1.2.f: Revive the district tree nurseries

Activity 3.1.2.g: Support innovative methods to encourage climate-resilient and nutritious production and CC/FS/GEN/NUT, such as celebrity chefs and cookery competitions

Activity 3.1.2.h: Undertake and document community exchange visits and support GoL system to institutionalise this

Activity 3.1.2.i: Mobilise partners to develop WASH interventions in an integrated fashion with asset creation

Output 3.1.3: Entrepreneurial opportunities promoted and market linkages established for climate-resilient value chains

By linking groups and community members to markets, Component 3 will support sustained income generation opportunities, thereby alleviating poverty, buffering against food insecurity, and enhancing communities' adaptive capacity through diversification of livelihood sources. Under Output 3.1.3, community members and groups will be supported to reduce post-harvest loss (PHL), increase their access to markets, and diversify their livelihoods through enhanced and targeted IGAs, based upon climate resilience and market demand. The project will strengthen their access

to financial services, business development support, and market access, to ensure greater impact for this output, as well as sustainability of the enterprises. Specific activities have been identified in order to create more sustainable and resilient food systems in the targeted project area, building on lessons learned, the MTR recommendations, and the results of the PHL study.

Actions to reduce post-harvest losses under output 3.1.3 will build on the PHL study conducted during phase I of the project, which indicated that more losses occur at storage stage.[126] Consequently, phase II will support and strengthen the existing aggregation system (farmer groups/cooperatives). Phase II will support simple small-scale postharvest practices including: the use of crop maturity indices to determine appropriate and timely harvest timing; the use of improved containers that offer protection of produce against damage during handling and transportation; the use of shade or shade-producing materials to prevent direct exposure to sun heat; sustained and appropriate practice of sorting and grading to enhance market value; advocating and encouraging farmers to learn more about marketing issues and how they impact on their produce through trainings and or messages via various media such as radio; and empowering institutions such as farmer associations, research and extension service-providers, and development partners. A range of options will be promoted, depending on the context; these could include tarpaulins and hermetic bags, as well as traditional granaries. Good local practices using IK will be identified and the project will train women, youth and men on small-scale environmentally-sound and climate-resilient PH structures (traditional granaries using local materials) and small-scale aggregation structures. The project will train farmers to utilize local materials like mud and thatch to build storage units that are designed to keep produce cool and dry. By leveraging local practices and knowledge systems, the project aims to inform the design and implementation of PHL solutions that are both culturally relevant and effective. In addition, phase II will implement recommendations of the PHL study to provide advanced tools such tarpaulins, weighing scales, and solar dryers to the smallholder farmers under category B, prioritising those in the remote foothills and mountain areas.

Actions to reduce PHL will focus on the main climate-resilient value crop chains to be promoted – sorghum and beans – to increase the volume of surplus product available for processing and sale. The increased knowledge on reducing PHL will allow farmers to reduce PHL from other crops, by applying relevant principles and practices. There is proven market demand for beans and sorghum in Lesotho, both of which have been shown by a recent crop suitability study to be climate-resilient options for the country. Both beans and sorghum are in high demand for school feeding and align with the project's nutrition focus. The project will include a focus on reducing pest depredation on sorghum in storage, in conjunction with the Department of Agricultural Research. Activity 3.1.2.g, which aims to support innovative methods to encourage climate-resilient and nutritious production, will include promotion of sorghum for diverse dishes; it is already in high demand by most households for sorghum porridge.

The project will support a number of climate-resilient value chains, by supporting capacity development and inputs to reduce PHL, enhance aggregation and processing / value addition, facilitating market linkages and access to financial services, and business development. Entrepreneurial opportunities along these value chains will be identified and supported for different groups. Regarding the two main climate-resilient value chains of sorghum and beans, and building on the activities to enhance production under output 3.1.2, the project will additionally support activities to reduce PHL and support farmers' groups in aggregation and processing, as well as linkage with off-takers. Entrepreneurial activities linked to the two main climate-resilient crops to be promoted for value chain development, namely sorghum and beans but not involving production would provide youth with further options for developing their livelihoods – for example, processing for value addition and income generation. The project will impart knowledge and skills on food processing techniques, including cleaning, sorting, preservation, packaging, and labelling (as this links to livelihood improvement and market access) and emphasis will be placed on educating participants about food hygiene practices and safety measures to prevent contamination and to ensure the production of high-quality processed foods (under activities 3.1.3.b and 3.1.3.c). For food preservation and processing, the project will provide training and facilitate peer-to-peer learning on simple food preservation and storage at community level. Inputs such as tarpaulins will be supplied to enhance quality of dried crops and simple methods of food processing will be supported, such as drying and canning. Based on good practice examples from phase I, the project will supply solar-powered dryers to interested groups and train them on their use and maintenance.

In addition to beans and sorghum, a limited number of additional value chains (maximum of two or three) will be identified to support removal of invasive species and/or promote increased income from indigenous medicinal species, and demonstrate a pathway to organic production. For invasive species, rosehip, which is a rangeland invader, presents opportunities for high value products such as organic rosehip oil that is not yet produced in Lesotho. The inputs for this value chain could initially be provided through brush clearing and then at a later stage through controlled planting in

126 Activities under output 3.1.3 have incorporated the findings and relevant recommendations of the Post Harvest Loss Study to reduce wastage before and after harvest. The PHL study found that there were lessons to learn from the Smallholder Agricultural Development Programme (SADP) in terms of effective models of scaling-out postharvest technologies to smallholder farmers and retailers that should be investigated e.g. the value-addition being promoted by SADP. Recommendations included that alternative value chains should be developed and strengthened e.g. processing, temporary storage, rapid cooling of produce (for horticultural produce) immediately after harvest; aggregation centres should be promoted; more targeted capacity development at different levels is needed; and incentives for the private sector to invest in reducing PHL should be explored. Phase II of the project will continue to integrate relevant findings into all value chains supported.

areas in which the MEF can certify will be suitable to prevent re-invasion into the rangelands. This approach was already suggested by the MEF in a 2014 assessment.

The project will identify and develop a value chain to be a precursor for an organic pathway – this could be for example for organic rosehip oil, organic eucalyptus oil, or others. Rosehip (*Rosa rubiginosa*) has entered local and international biotrade industries for making useful products for the food, pharmaceutical and cosmetic industries. The MEF has indicated potential for this to be commercially grown under controlled conditions once the wild-growing rosehip has been eradicated from the rangelands – which is not expected to occur before 2040. There is strong market demand for rosehip, as identified in several studies. The rosehip market in general is forecast to have strong growth and export potential in the near future.[127] The project will allocate some of its resources for branding work with the envisaged Basotho Brand (as set out in the NSDP-II Strategic Focus to 2027/28) and could advocate for development of a 'Basotho Natural' brand, that is *de facto* organic but not yet certified internationally as organic. Lessons can be learned from the approach in Bhutan in which a Bhutan Natural brand that is nationally certified has been accepted by neighbouring countries and others in the export market; this receives a higher premium than non-nationally certified exports but avoids the significant costs associated with international organic certification e.g. through EcoCert.

The enhanced focus on entrepreneurial opportunities will comprise a range of opportunities already identified during the stakeholder and community consultations, including:

- Organic compost / fertilizer production
- Local production of animal feed
- Locally processed and preserved food
- Heat retention bags (locally known as wonder boxes) and energy-efficient stoves' production
- Cottage industries, including crafts and cosmetics production, that target women and female youth – as requested by those groups in the community consultations
- Those that specifically target youth and herders, such as apiculture, briquette making from dung – as requested by those groups in the community consultations
- IGAs of relevance for schools, such as vegetable and egg production

There is strong market demand for organic compost and fertiliser production, as well as for local fodder production. Currently only a small number of farmers in the project areas are engaging in these activities; their experiences will be factored into the support activities. To deal with high levels of unemployment and to offset the gendered labour force participation rate, and promote economic empowerment of groups that are lagging, the project will deepen and expand the activities supporting IGAs for vulnerable and economically disempowered groups. This will include women, female and male youth, and male herders of all ages. As unemployment rates are high for people living with HIV (PLHIV) and PwD, the project will strive to support those groups through targeting and IGA support. All capacity development to promote IGAs for different groups should strive to link groups and individuals to expanded market opportunities that would provide dividends to women and men of different ages, for enhanced sustainability.

For women, and potentially for youth, capacity development for the construction of heat retention bags and fuel-efficient stoves will be provided. There is demand in the national market for heat retention bags, and good support skills available within the MAFSN Home Economics Unit to train women to produce these to a professional standard. The NUL Innovation Hub and shop in Maseru is already providing quality control, branding and marketing support for Lesotho-made heat retention bags and would provide these services for the project. Cottage industries, including crafts and cosmetics production from sustainable harvesting and/or removal of invader species will target women and female youth. It is likely that the focus for any cosmetics production will be on rosehip and indigenous medicinal herbs, for which there is demonstrated market demand and market outlets, including through the NUL Innovation Hub. The project will work with private sector players such as The Rosehip Company in Mohale's Hoek[128], which has organic certification from the USDA, to enhance aggregation in the project areas and support production of a range of products from rosehip. Working on the rosehip value chain would have additional benefits for animal production, as the byproducts produced during the cutting and sieving process can be combined to produce a highly nutritious and versatile animal feed.

Opportunities for herders include briquette making from animal dung and beekeeping. A cost analysis carried out for briquettes made from cow dung has shown that these briquettes are an economically viable, low cost and eco-friendly substitute for many conventional cooking fuels.[129] The demand for honey is increasing in Lesotho because of its medicinal and nutritional benefits. This is evidenced by the very large volumes of honey imported into the country.[130] Animal fodder production will be championed and entrepreneurial opportunities buoyed for increased production, to reduce pressure on rangelands. IGAs relevant for schools will be supported, like vegetable and egg production. Lessons learned from WFP's Food Assistance for Training (FFT) approach, which aims to equip participants with the right marketable skills to build sustainable livelihoods, will be integrated where applicable. This approach supports the economic inclusion of all

[127] https://www.transparencymarketresearch.com/rosehip-market.html - Rosehip Global Industry Analysis 2017 – 2027.
[128] http://www.therosehipcompany.com/products/
[129] Hamid, Nor & Muaddah, Hafiza & Za'ba, A'lya & Afandy, Muhammad. (2021). Biomass Briqmure: BBQ Briquettes Fuel Source from Cow Manure. 10.2991/assehr.k.210312.075.
[130] https://lenafu.org.ls/apiculture/

those groups that are not involved in agriculture production or do not have access to productive land.[131] MoA experts are locally available for a number of the potential IGAs to be supported. Where this is not the case, a mobile training approach can be used, concentrating the training in a few full-day courses held by trainers coming from the country's main centres. Most of the potential IGAs to be supported fit under the umbrella of green skills training – for example, the heat retention bags and energy-efficient stoves.

Phase II will enhance access to financial services and business development by strengthening informal groups and facilitating linkages with formal service providers in the project areas. This will include increasing access to credit, which is one of the major challenges that women entrepreneurs experience. Informal sources of finance that are very important for women in rural areas, such as the local community and informal savings clubs, will be strengthened and access facilitated for youths to integrated financial services packages such as those offered by EcoNet, ~~and~~ Lesotho National Development Corporation (LNDC) and others.[132] Farmers' groups will be linked to microfinance associations (Savings and Lending Groups) and also collaborate with other institutions to provide financial education to community groups; where the need arises, linkages of potential farmer groups to formal financial institutions will be facilitated. The project will work in partnership with a range of other private lenders and business support institutions like Econet and LNDC to strengthen the capacity of microfinance associations. This will not necessarily be through a formal partnership, but will include advocacy and sensitisation with potential lenders so that they are aware of the vulnerability of potential clients and become more effective in serving rural communities to promote sustainability of small and micro enterprises. This will include strengthening their skills to build systems that can easily follow-up on the borrowers and ensure proper utilization of funds, skills to develop tailored lending models, and simplified loan application processes and repayment modalities. The project will support the micro-credit institutions to develop lending models which prioritise small loan services to groups. In these models, the group can promise to monitor each member's loan utilization and re-payment and in return get lower interest rates; the member's subscriptions could also be put up as collateral, forcing them to repay their loans or lose their group membership. Other rural finance institutions may encourage enterprise owners to register for membership and thereby enjoy low interest rates. Micro-credit institutions can also be capacitated on resource mobilization strategies that may allow them to charge lower interest rates. More women are engaged in enterprise/small business activities including retail, agriculture and cottage industries as a way of creating livelihoods for their households. Based on this, micro-credit providers in Lesotho are well-disposed to target women, to assist them to start or expand their businesses. The issue has been the lack of access to financial services and micro credit in the project's areas, which the project will facilitate.

Smallholder farmers will be continuously capacitated in the areas of business management, agribusiness/commercial farming and agricultural marketing. This will enhance the efforts made to reduce PHL across the different value chains especially at harvest, transportation from field as well as during storage, and ensure that additional income can be generated and sustained from the increased amounts of commodities. The project will delineate a clear focus for off-farm activities, linked to reducing land degradation and increasing climate-resilient agricultural production, to reduce the risk of spreading itself too thin under output 3.1.3.

Enhanced market access support will be provided, including market days at IACoV project sites, district markets, connecting farmers to the NUL Innovation Hub 'Made in Lesotho' shop, and facilitating additional local, district, and national market linkages with and between producers, aggregators, and off-takers. The market days will be conceptualised as integrated events that link actions across the project's three components; for example, AR activities such as competitions for school choirs, youth theatre groups, and traditional dancing to incentivise innovative approaches for awareness raising on the CC/FS/GEN/NUT nexus, etc. The Department of Marketing (DoM) has highlighted that it is important to continue and expand the use of round-table discussions/dialogues, market days, agricultural fairs, and buyer/seller meetings as tools for market linkages (market access activities will be integrated into several of the activities set out below). While commodity marketing is being improved, it is also vital to engage with relevant departments to support the improvement of the commodity standards/quality especially for the priority value chains where markets are available. The project will support the process to improve quality and develop commodity standards for the value chains of sorghum and beans, as well as for the limited number of value chains to support for invasive species and to move towards an organic production pathway.

Innovative ways to enhance market access will include reviewing, enhancing and promoting the existing e-marketing application, whilst supporting engagement of the private sector for the sustainability of this application. The e-marketing platform is a good tool that provides for a comprehensive list of services including agriculture seasonal calendar, forecasting information, crop care and communication channels including Whatsapp and SMS. In addition to sensitisation of smallholder farmers on the existing e-marketing platform of the MoA, the project will support the GoL to enhance the integration of localised agromet advisories and nutrition-related messaging into the platform and will support the GoL to develop the application further so that it is fit for purpose for gender-responsive digitalised dissemination. Activity 3.1.3.f thus necessitates strong interlinkages between Component 1 and Component 3 implementation.

[131] The project will explore whether a labour market analysis is needed to understand the goods and services that would fit identified market gaps, and, if so, whether this could be included under the budget allocated for activity 3.1.3.b.
[132] LNDC provides collateral packages to smallholder farmers and small enterprises to access loans from the banks and other micro finance institutions.

Activities under Output 3.1.3

Activity 3.1.3.a: Identify and implement targeted actions to reduce PHL, integrating IK

Activity 3.1.3.b: Support IGAs for women, herders, youth, men, disabled, and schools

Activity 3.1.3.c: Support aggregation, processing, and facilitate linkages with off-takers for beans and sorghum value chains

Activity 3.1.3.d: Facilitate linkages to financial services inclusion and enhance business management and development

Activity 3.1.3.e: Conduct analysis and implement focused value chain support for invasive species and a pathway to organic

Activity 3.1.3.f: Support market days and build on e-marketing platform of MoA to integrate agromet advisories and nutrition-related messaging, for gender-responsive digitalised dissemination

Activity 3.1.3.g: Advocate for development of a Basotho Natural brand

Outcome 3.2: Enhanced institutional systems and policy advocacy for climate adaptive social protection

Output 3.2.1: Policy advocacy and systems development to support climate adaptive social protection

Under Outcome 3.2, the project will carry out further policy advocacy and support the development of institutional systems to ensure sustainability of the project activities on watershed rehabilitation and livelihoods in the context of climate change adaptation. This will result in sustainable improvements to Lesotho's shock-responsive social protection system. To this end, the project will support the MEF to develop an enhanced operational strategy and M&E system, as a key issue in the past for the *fato-fato* social protection activities has been the lack of targeted M&E to determine the precise benefits/impacts on food security. While the *fato-fato* programme has also not tracked long-term impacts on food security, IACoV phase I tracked this outcome carefully through a number of relevant indicators. One of the two indicators to track the project goal (which aims at reduced food and nutrition insecurity) is household dietary diversity score. A primary focus of the awareness raising activities under Component 2 is on climate change impacts on food security amongst vulnerable communities and youth and knowledge of adaptation actions. However, the IACoV phase I approach has not yet been translated into an institutionalised M&E system for the MEF, although in 2024 there has been a concerted effort by the project to strengthen data analysis and reporting at the district level on the part of government counterparts, to enable this to feed without delay into planning and implementation. Under phase II, the project will assist the MEF to develop and institutionalise the necessary M&E system, to provide a strong mechanism for ensuring sustainability of similar interventions after the project.

Additionally, policy advocacy work will be conducted towards assisting the MEF to develop an integrated strategy for addressing land degradation and enhancing livelihoods in the context of adaptation to climate change, linked to the social protection system and the enhanced M&E system for MEF. During the development of the M&E system, attention will be paid to the most effective and inclusive ways to enable community-based monitoring. It is envisaged that an output of the policy advocacy work will be a 'climate adaptive and livelihoods enhancing land restoration strategy' that integrates CC/FS/GEN/NUT, linked to the *fato-fato* social protection programme. Such a strategy would build upon and update the work conducted under the UN Convention to Combat Desertification (UNCCD) in Lesotho, and thus bring about a strong national-level integration between implementation of the UNFCCC and the UNCCD, additionally linked to the national social protection system.

Activities under Output 3.2.1

Activity 3.2.1.a: Policy advocacy for climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system

Activity 3.2.1.b: Support MEF and Ministry of Social Development to develop impact-oriented M&E system for climate adaptive social protection

Activity 3.2.1.c: Implement and report on community-based monitoring

Contribution of Component 3 to the climate change / food security / gender / nutrition nexus:

- The community and individual nutrition- and gender-sensitive productive assets developed under output 3.1.2 to support climate risk reduction and adaptation will be informed as much as possible by the need to integrate the CC/FS/GEN/NUT.
- The value chains to be supported under output 3.1.3 will need to show an engagement with the CC/FS/GEN/NUT to be supported.
- The policy advocacy and M&E work under output 3.2.1 will integrate the CC/FS/GEN/NUT nexus. Thus, indicators to be included within the MEF M&E system will be developed to track the different elements of the CC/FS/GEN/NUT nexus, as well as their integration.

II.B. Economic, social and environmental benefits

Economic benefits

Reduced crop losses and increased income through provision of targeted climate and agricultural advisories and increased and more climate resilient production: Under Output 1.1.1, the project will upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature; and under Output 1.1.2 will enable the development of impact-based forecasting for temperature and rainfall to improve climate services. These results will be a necessary input into Output 1.3.1, under which gender-responsive last mile climate services will be developed and disseminated on an ongoing basis, including through digitalised means. Thus, targeted smallholder farmers, 60 percent of whom will be women and female youth, will be able to plan and manage climate variability and risk better, informed by timely and targeted climate information that includes actionable agro-met advice. The resulting economic benefits will accrue through avoidance of lost investments through crop failure, as well as maximised production under suitable conditions. A conservative estimate from other regions is that farmers who adapt their agricultural practices based on weather advisories will increase their annual income by 50 percent.[133] Assuming two good years of harvest in the 5-year period of the project, and based on an estimated 50 percent of the project's direct CBT beneficiaries of 28,800 households achieving a 40 percent increase in annual income, with an average annual baseline household income for the targeted smallholder farmers of USD 520, this translates into an average increase per household of roughly USD 416 over 5 years for 14,400 households, or an increase in income in the 'with project' scenario of approximately USD 5,990,400 for the project as a whole. Actual figures might be higher as a result of the cumulative positive effects of the range of risk reduction and adaptation activities of the project, which will be greater than the effects of enhanced access to climate services alone; it is also possible that more than 50 percent of the targeted households will achieve this benefit. Eenhanced provision of climate-resilient agricultural technologies and more consistent technical support and recurring training activities, as well as provision of inputs such as drought-tolerant, early maturing, and/or indigenous varieties, will result in surplus production for income generation. This is expected to have a considerable impact in Thaba Tseka particularly, where currently the adoption of improved agricultural practices is very low – a recent study found this to be only 1.2 percent of smallholder farmers.[134] The economic analysis of five adaptation options implemented during phase I found that four of the options were already economically viable and cost effective. For example, keyhole gardening in the project is viable at the net present value (NPV) of M42,783,387.93 over a 15-year period and yields a high internal rate of return (IRR) ~~which could not be detected by the excel sheet and as such indicates that the intervention is economically viable~~ which. ~~The IRR~~ is far ~~way~~ higher than the discount rate of 5%. This ~~which~~ implies that there are returns on investment for ~~of thi~~k~~s project. K~~eyhole gardening, which displays a high return on investment because of low operational cost, less seeds used for maximum yield and the capacity to hold moisture longer. According to the sensitivity analysis conducted, even if the costs were to increase by 15% and the benefits to decline by 10%, this intervention would still economically viable. Short-cycle livestock (chickens, rabbits, ducks and pigs)[135] interventions were found to be highly economically valuable with NPV of M19.8 million over a period of 12 years and a very strong IRR of 172% which indicates that the project is highly viable. Even under the worst scenario included in the sensitivity analysis, the intervention was still found to be highly viable with estimated NPV of M14 million and IRR of 113%.

Reduced economic impacts resulting from climate change effects on agro-ecosystems: An economic analysis conducted under phase I of IACoV revealed that climate change, without appropriate adaptation, translates into a range of economic sector impacts and increased costs. In Lesotho, food security and livelihoods are closely intertwined with agriculture, which is dominated by climate vulnerable production systems and value chains. Consequently, there is a cascade of economic impacts resulting from climate change effects on agro-ecosystems, including agricultural loss and damage, greater need for social assistance, additional burden on the health system and productive capital losses, greater emergency relief and response needs, and increased land degradation/rehabilitation costs. Thus, without appropriate adaptation, climate change impacts are likely to result in a net negative impact on agricultural production at the national level. Incidentally, drought, severe frost, excessive rainfall, and pests and disease outbreaks are already key production risks in Lesotho, with resulting average annual losses estimated at LSL680 million or 2% of GDP (2019 prices).[136] These risks are expected to intensify with climate change. Project interventions will arrest the negative cascade of economic impacts and result in enhanced performance of the agricultural sector.

Reduced losses from climate-related disasters: Generating enhanced sub-seasonal to seasonal forecasting, linked to forecast-based triggers using scientific data is an innovative way to indicate elevated risks and respond early before disaster strikes. Component 1 of the project will enhance the accuracy of the S2S forecast, develop an Impact-based forecasting system, scale out the anticipatory action for drought across all 10 districts of Lesotho, and facilitate the development of a multi-hazard national AA system. Thus, more accurate forecasts of impending longer-onset climate shocks such as drought, as well as shorter-onset climate shocks like heavy rains, will trigger preparedness, early action and links with the GoL safety net programme. This will also ensure that natural resources are utilized more effectively. In addition, through this project, rural communities will be mobilized and empowered to make better decisions related to their existing livelihoods, and as a result, will be able to use their inputs (including labour allocation) more efficiently. **Figure 3** in the next section summarises the number of people affected by, and monetary cost of, certain extreme events

[133] This is based on studies in India.
[134] Hunter. R., Crespo. O., Coldrey, K, Cronin, K, New, M. 2020. Research Highlights – Climate Change and Future Crop Suitability in Lesotho. University of Cape Town, South Africa, undertaken in support of Adaptation for Smallholder Agriculture Programme' (ASAP) Phase 2. IFAD, Rome.
[135] The intervention targeted 2,856 beneficiaries and total of 632 chickens, 32 rabbits, 30 piglets, 100 ducks and 4 rabbit's houses were distributed to the beneficiaries in phase I, at the time of the cost benefit analysis study.
[136] World Bank. 2019. Lesotho Climate-Smart Agriculture Investment Plan. The World Bank, Washington.

in Lesotho for which data is readily available. This incomplete record indicates a cost of LSL2,681,200,000 (over USD15 billion) of these selected extreme events. Other estimates indicate that climate induced extreme events caused economic losses totalling USD80,000,000 over the last decade. Most of the climate risks affect the rural vulnerable populations more due to the lack of accurate information and early warning. Building on and deepening the achievements of IACoV phase I, the proposed phase II will further enable the GoL to shift investments from risk recovery to preparedness and development, which will avoid losses for the rural population. Moreover, anticipatory response should result in lower unit costs of aid due to early procurement/pre-positioning; decreased caseloads as response is assumed to take place before households enter into a downward cycle of asset depletion and negative coping strategies; and additional benefits, for example improved attendance at school, better health, and longer term income gains for women and men. A cost-effectiveness assessment of the AA conducted in Lesotho in the four project districts in 2024 found the estimated relative net benefits of doing anticipatory versus post-shock assistance to be, at minimum, about USD899,000, relative to providing post-shock assistance to the same size group of beneficiaries. This result can also be understood as every 1 USD in anticipatory action being equivalent to USD 1.28 dollar in post-shock response to yield the same quantity of benefits.[137] The project will continue the work done by phase I in removing barriers including those related to adoption of new technologies and practices such as gender-responsive ICT/mobile technologies for EWs. Strengthening of LMS's capacity to provide S2S and support to the climate services system creates conditions for enhanced budgetary support and financial viability in the long-term. The project will also support LMS to further develop its idea for additional revenue generation that will then be used to make the climate forecasting and EW system more self-sustaining. Activities under Output 3.3.1 will also strengthen processing and storage facilities which will reduce overall post-harvest losses.

~~*Increased income froRm increased and more climate resilient production, r*~~*educed post-harvest losses and more resilient and diversified livelihoods:* ~~enhanced provision of climate-resilient agricultural technologies and more consistent technical support and recurring training activities, as well as provision of inputs such as drought-tolerant, early maturing, and/or indigenous varieties, will result in surplus production for income generation. This is expected to have a considerable impact in Thaba-Tseka particularly, where currently the adoption of improved agricultural practices is very low – a recent study found this to be only 1.2 percent of smallholder farmers.[138] The economic analysis of five adaptation options implemented during phase I found that four of the options were already economically viable and cost effective. For example, keyhole gardening in the project is viable at the net present value (NPV) of M42,783,387.93 over a 15-year period and yields a high internal rate of return (IRR) which could not be detected by the excel sheet and as such indicates that the intervention is economically viable. The IRR is far way higher than the discount rate of 5% which implies that there are returns on investment of this project. Keyhole gardening displays a high return on investment because of low operational cost, less seeds used for maximum yield and the capacity to hold moisture longer. According to the sensitivity analysis conducted, even if the costs were to increase by 15% and the benefits to decline by 10%, this intervention would still economically viable. Short-cycle livestock (chickens, rabbits, ducks and pigs)[139] interventions were found to be highly economically valuable with NPV of M19.8 million over a period of 12 years and a very strong IRR of 172% which indicates that the project is highly viable. Even under the worst scenario included in the sensitivity analysis, the intervention was still found to be highly viable with estimated NPV of M14 million and IRR of 113%.~~

In sub-Saharan Africa, 30-50 percent of food produced for human consumption is lost or wasted along the value chain every year. These losses equally affect nutrition, food security and income. Targeted actions to reduce PHL, to promote both food security and for sale to generate income will be supported, integrating indigenous knowledge where appropriate – for example, IK to build PH structures. The majority of respondents (84%) in the PHL study conducted during phase I indicated they had not received training or technical advice on PHL. There is thus considerable scope to increase surplus production and thus enhance incomes through even basic improvements to reduce PHL. Moreover, farmers are prepared to spend some of their own income to reduce PHL, indicating a route for sustainability for this intervention.[140] The project will support simple small-scale postharvest practices for higher adoption and effectiveness. Project activities to reduce PHL will result in increased surplus, which can be sold during favourable market conditions, thus increasing income of women and men farmers. A study of maize farmers in Tanzania found that with levels of PHL of 11.7 percent of the amount harvested, the value of the losses was estimated to be USD 58.9 per household, which was about 1.2 times the median household monthly income.[141] A study in Senegal found that reducing PHL in vegetables could increase the total value of vegetable supply by 45 percent.[142] In Mozambique, with WFP support to over 30,000 farmers, PHL were reduced from 50 percent to 9 percent and incomes increased by 9 percent. Thus reducing PHL is expected to result in significant economic increases ~~in income~~ for project beneficiaries. Furthermore, as production is enhanced and diversified into more climate-resilient varieties, the project will support the development of climate-resilient value chains for high-value commodities, with associated PHL reduction, enhanced processing, and increased access to markets. This will result in

[137] WFP (2024) Cost Effectiveness of Anticipatory Action: Lesotho, Madagascar and Mozambique.
~~[138] Hunter, R., Crespo, O., Coldrey, K, Cronin, K, New, M. 2020. Research Highlights – Climate Change and Future Crop Suitability in Lesotho. University of Cape Town, South Africa, undertaken in support of Adaptation for Smallholder Agriculture Programme' (ASAP) Phase 2. IFAD, Rome.~~
~~[139] The intervention targeted 2,856 beneficiaries and total of 632 chickens, 32 rabbits, 30 piglets, 100 ducks and 4 rabbit's houses were distributed to the beneficiaries in phase I, at the time of the cost benefit analysis study.~~
[140] Across the country, the highest priority for crop postharvest loss reduction was given to maize followed by dried beans and the small grains (sorghum and wheat), followed by horticultural crops. In maize, 42% of respondents are only prepared to invest no more than M500 (1USD = 17M) in PHL reduction while about 10.5% and 8% respondents willing to invest M1001 – 2000 and M501-1000, respectively. A few farmers (4.9%) are willing to part with more than M3001 to reduce PHLs.
[141] Chegere, M.J. (2018) Post-harvest losses reduction by small-scale maize farmers: The role of handling practices. Food Policy, Volume 77, p. 103-115.
[142] Beye, Assane & Komarek, Adam. (2020). Quantification and benefits of reducing post-harvest losses: Evidence for vegetables in Senegal, ZEF-Discussion Papers on Development Policy No. 300.

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strengthened and diversified livelihoods, as well as increased income streams for smallholder farmers. The project will in this way support the shift from subsistence to sustainable livelihoods in Lesotho's rural areas. A related indirect national benefit of increased purchasing of national produce, rather than of foreign imports, and of the reduction in imported chemicals due to natural fertiliser production, is the contribution towards reducing national debt.

Reduced costs associated with hunger in Lesotho: Food insecurity and malnutrition has a cascading effect on the health system and human capital through increased mortality, illness and disability. The 'cost of hunger' in Lesotho was estimated at LSL1.9 billion (2014), or USD 188 million, equivalent to 7 percent of the GDP of that year.[143] The project actions are anticipated to lead to a significant reduction in the 'costs' associated with hunger, which will reduce costs on the fiscus as well as costs and negative health and social impacts at the HH level.

Facilitating enhanced access to savings, microfinance, and business development support: through project support of these activities, households will be better equipped to manage smaller and more frequent shocks through building risk reserves, and to access microcredit to facilitate their productive activities and livelihoods. Combined with the enhanced anticipatory action system, which will reduce risks to larger shocks such as drought and extreme cold spells, this will allow individuals to become more resilient to both smaller and larger shocks, whilst also being able to increase their savings over time. Women participants in similar projects in different countries have doubled their savings capacities. It is conservatively estimated that the amount of additional savings made by female participants in the project's financial inclusion initiatives would be at least USD 240,000[144], which would not only increase participants' resilience to smaller shocks but would also have a significant stimulating role in local economies as well as in the financial viability of financial services providers, should these participants also make use of microcredit. It is estimated that the project will result in at least a 40 percent increase in the number of targeted women farmers accessing credit.

Given the dearth of similar figures from Lesotho for interventions along the lines of phase II, it is not possible at this stage to provide additional quantified economic benefits, beyond what is provided above. Under activity 2.3.1.e., evidence will be generated to fill this gap in quantified economic benefits for adaptation options in Lesotho, to be reported on to the AF in the relevant project performance report; this reporting will generate data upon which to base future interventions.

Social benefits

Ensuring participation of poorest, most vulnerable populations without compromising their food security in the short-term: building on success with this approach in IACoV phase I, and considerable WFP global experience and GoL national experience, transfers will be provided to households in the targeted communities to enable their participation in activities to build physical infrastructure and livelihood assets as identified in Component 3. Such transfers are planned for 3 years, with a graduation from year 4. Farmers who have already graduated in IACoV phase I will not be supported with transfers but will continue to receive targeted technical support, as well as business development support and PH/value chain support. Compared to many other organizations, WFP together with the GoL targets the most vulnerable rural households, who fail to meet their daily food needs, and are most vulnerable to the impacts of climate change. Transfers are therefore a necessary enabling condition for these populations to participate in the creation of resilience and adaptation assets. In practical terms, without food assistance, the most vulnerable people would need to use their time and efforts to provide food for their families to meet their current needs, rather than participating in the creation of adaptation assets to address climate variability and shocks in the future. This means that without the enabling element of an initial transfer, those who are in greatest need of adaptation services would be excluded from the opportunity to restore land and create their own climate change adaptation assets. This, in turn, would undermine the sustainability of the project.

Targeting of women farmers will improve agricultural output and improve nutritional outcomes: FAO has estimated that if women farmers had the same access to resources as men, agricultural output in developing countries would rise by an estimated average of up to four percent and reduce the number of undernourished people in these countries by as much as 17 percent, translating to up to 150 million fewer hungry people. Given that the project will target at least 60 percent female beneficiaries and ensure their equitable access to resources needed to enhance their production, the project will contribute to this social benefit in Lesotho.

Learners and teachers at formal and non-formal institutions empowered on climate-resilient development: The project will have targeted social benefits through the formal and non-formal educational systems, building on the achievements of phase I in training 600 teachers on the use of the LMS climate change toolkits in their teaching, resulting in enhanced knowledge on climate change for their pupils, and, at 295 schools, rolling out the climate-smart agriculture toolkits developed under the UNDP/LDCF RVCC project. In phase II, the, resultant empowerment and skilling of learners with enhanced knowledge and practical climate resilient agricultural methodologies will be scale dup by expanding this activity across all districts, as well as extending it to non-formal institutions such as the initiation schools attended by herders.

Improved nutrition, health and food security: Under Component 3 the project will promote both increased diversified production, including horticulture, vegetables, small grains, short cycle livestock, and high-value tree crops including fruit

[143] AU (African Union). 2016. Cost of Hunger in Lesotho Report. African Union. Online https://www.wfp.org/publications/cost-hunger-africa-series
[144] This has been conservatively calculated based on 4,000 people saving an additional USD30 per year, calculated for 2 years (assuming that participants would need some time and support to increase their savings), which translates into 4,000 x 30 x 2 = USD240,000 additional own savings for the project participants.

trees, as well as quality and safety standards which will ultimately lead to improved dietary diversity and nutritional value of food consumed. This will by extension improve the health of people, in particular for women, children, and PLHIV. Phase I of the project has demonstrated success in improving household dietary diversity.[145] At baseline, 86 percent of households were classified as having low dietary diversity, but this figure has since decreased to 74 percent. The proportion of households with moderate dietary diversity increased from 12 percent to 24 percent. Under phase II, the project will place additional emphasis on quantifying the benefits on food security. A central element of the climate change awareness raising strategy at national, district and community levels will be strong messaging on the links between climate change, food security, gender and GBV, and nutrition, through the adoption of the CC-FS-GEN-NUT nexus as the central organising concept.

Greater gender equality and women's empowerment, as well as youth empowerment: Through this project, women, female and male youth, herders, as well as men, will be trained on the importance of nutrition as well as skills development in order to generate income through provision of inputs, seeds and water for irrigation and drinking. This project will aim to contribute towards gender equality and women's empowerment by allowing for increased decision making, educational attainment, economic integration as well as improved autonomy related to work load and health. The project will deepen the approach of phase I to training both men and women to improve the nutrition of their children by including herders in a meaningful way. Additional emphasis will be placed on enabling IGAs for women, as well as for youth and herders, and facilitating market linkages to ensure economic benefits. Community-based adaptation planning, through the CBPP process, represents a powerful vehicle for women's empowerment. By increasing the number of stakeholders receiving timely threat and hazard information by 90 percent, and that there will be a significant increase in the number of smallholder farmers, disaggregated by gender and age, who have enhanced access to localised climate services (target TBD at inception, 60 percent will be female and 40 percent youth), while 60 percent of the targeted population will be aware of predicted adverse impacts of climate change, and of appropriate responses to apply in decision making on their livelihood strategies, the project will empower women and men, female and male youth, for more climate-resilient livelihoods. Moreover, there are documented economic benefits to addressing GBV that show a subsequent contribution to GDP and wider economic development.

Improved community participation, ownership and accountability: By providing climate information coupled with a greater understanding of food security and climate risks and enhanced sensitisation on GBV and its links to climate change, the project will help community members to enhance their planning and decision-making on specific resilience building and adaptation interventions. Under Component 3 the project will advocate for the aggregation of community plans into district-level programming, leading to key partnerships for further complementary programming to enhance resilience building efforts. It will also facilitate linkages with potential private sector support for relevant activities, to broaden the sense of ownership and cohesion in addressing climate challenges. Phase I has led to positive changes related to experience and perceptions of safety, security, and personal comfort, trust and confidence, attitudes, preferences or behavioural norms, organizational culture or function, and equitable distribution of benefits. Communities have benefited from the increased safety and security and reduced disruption to educational activities, family and community structures. The strengthened capacities of the communities and linkages to sub-national systems can empower and enhance decision-making among community members. Communication channels established through phase I under the AA system allowed district and local governments, together with community members, to take proactive steps to protect their lives and assets during periods of shocks. This had a significant social benefit, to be assessed during the endline survey and terminal evaluation. It also provided a sense of community as individuals were able to help others during these events, and to take responsibility for maintenance of community assets. Phase II will deepen these positive benefits across the project districts; and will generate evidence to inform policy advocacy, as a means to extend the benefits beyond the project lifespan.

Environmental benefits

Improved soil quality, reduction in erosion and soil loss: The project will contribute to reversing the alarming loss of topsoil in Lesotho (3–5 percent per year) through a range of integrated watershed management activities that promote soil conservation, including gully restoration, wetlands protection, rangeland reseeding, planting native species and nitrogen fixing plants resulting in increased plant cover, improved plant diversity and reduced deforestation for firewood. IACoV phase I had the aim of increasing the vegetation index in the project areas by 10 percent, which will result in a significant increase in ecosystem services such as reduced soil erosion, decreased flooding risk, increased water quality downstream, enhanced biodiversity etc. Phase I focused on the 549 square km of the total area in the southern districts that is in the moderate to highly degraded environment category; 6,241 hectares of rangeland have been rehabilitated to date, with brush control and re-seeding conducted. Training of local extension services and smallholder farmers on interpreting climate information linked to the sustainable use of natural resources will also contribute to increased water, land, firewood supply and related income. Under the IACoV approach, which will be deepened and enhanced in phase II, farmers are able to better plan their activities to protect against floods, resulting in a reduction of soil loss (and any

[145] HH DDS is used as a proxy measure of household food access, i.e. measures the impact of the project on food access and is used to track the project goal of reduced food and nutrition insecurity.

nutrients that may be used on their crops) to the riverine environment. Increased soil conservation will, over the long term, reduce or prevent the use of forest areas for agricultural production.

Increased availability and quality of water for household use, animals and irrigation: Activities under Component 3 of phase I, including household water harvesting and climate-smart irrigation techniques, resulted in greater water availability and reduced conflict in some of the project sites related to its use for household, agricultural and animal use. Restoration of wetlands and development of three sand dams have led to enhanced ground water percolation and recharge, resulting in increased and sustained river flows within and beyond the project areas. The implementation of the AA system and provision of enhanced climate services allowed farmers to be more aware of impending events such as droughts and floods, and to adjust planting calendars and/or undertake alternative farming practices that would use less water or be able to cope with the predicted rainfall patterns. Phase II will build on lessons learned with respect to water availability interventions to deepen and scale out these positive benefits, so that farmers will be prepared to store water in micro dams and limit overexploitation of the resource through drought events.

Reduced pressure on the natural environment and resultant increase in biodiversity and ecosystem services: The project approach under phase I, to be continued under phase II, harnesses social protection transfers for the most vulnerable groups to enable asset creation to bring about transformational change by (i) reducing pressure on landscapes and the natural environment (e.g. avoiding negative coping strategies such as deforestation); (ii) gradually increasing adaptive capacity through training, creation and management of climate adaptation assets; and (iii) improving productivity and building economic protection from shocks, thereby preventing relapse into poverty. In this way, some of the most vulnerable people can be supported from a subsistence to a sustainable livelihoods level. In terms of sustainability, participants are gradually phased out of the conditional transfer, once the identified community adaptation assets and household-level interventions are completed. Based on several other experiences with this type of intervention, rural populations can maintain and replicate the assets created thanks to the establishment of community level structures. Phase II will enhance the focus on apiculture for ecosystem regeneration and honey production for livelihood improvement, targeting herders as well as other interested groups.

Avoiding or mitigating negative impacts

The following measures will ensure that project activities are designed and implemented in a way that does not cause negative social or environmental impacts:

- Strong collaboration with relevant Ministries, both in activity design and implementation (e.g. Ministry of Environment and Forestry, Ministry of Agriculture, Food Security and Nutrition, Ministry of Small Business, Marketing and Cooperatives, Ministry of Social Development, Ministry of Trade, Ministry of Development Planning, Ministry of Local Government, Chieftainship, Home Affairs and Police, Ministry of Water);
- Engagement with community leaders and opinion formers such as traditional authorities, religious leaders and traditional healers;
- Consultation and engagement with beneficiary communities, including vulnerable groups and herders;
- Conduct a GBV assessment and develop a protection risk mitigation plan;
- Empowered and inclusive community-based planning to create local resilience and adaptation plans, coupled with annual follow-up community-based planning workshops;
- Establishment of complaint and feedback mechanisms to enable beneficiaries to raise their voice and report any irregularities and allow for pre-emptive operational adjustment;
- Overall (i.e. at project level) environmental and social screening and categorization against the AF's Environmental and Social principles at full project formulation stage;
- Activity-level environmental and social screening for component 3 activities at project implementation stage; and
- Planning, implementation and monitoring of necessary mitigation measures as identified by the activity-level environmental and social screening.

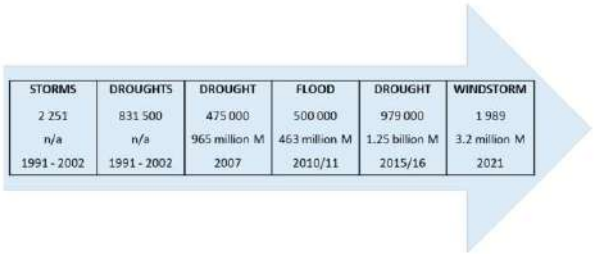
Please see **Section K** for additional information on how the project will avoid or mitigate negative environmental and social impacts, as well as the attached Environmental and Social Management Plan (ESMP) (**Annex 7**).

II.C. Cost effectiveness

Phase I of the project funded an economic assessment of the national scale economic impacts of climate change within a food security and nutrition context which revealed that climate change, without appropriate adaptation, translates into a range of economic sector impacts and increased costs. The study found that without appropriate adaptation, climate change impacts are likely to result in a net negative impact on agricultural production at the national level, which more than justifies the cost effectiveness of the project when compared with the status quo.[146] Regarding the alternative of no project, the recent climate variability has had serious impacts on food security and national response costs. Drought,

[146] Browne. M., Lewis. F. 2023. The Economic Costs of Climate Change in the Context of Food Security and Nutrition, Lesotho. Climate, Food Security and Nutrition Analysis in selected Community Councils of Mafeteng, Mohale's Hoek and Quthing Districts, Lesotho – Technical Report Volume 4. A report to the IACOV project.

severe frost, excessive rainfall, and pests and disease outbreaks are already key production risks in Lesotho, with resulting average annual losses estimated at LSL680 million or 2% of GDP (2019 prices).[147] These risks are expected to intensify with climate change. **Figure 3** summarises the number of people affected by, and monetary cost of, certain extreme events in Lesotho for which data is readily available. This incomplete record indicates a cost of LSL2,681,200,000 (over USD15 billion) of these selected extreme events.



STORMS	DROUGHTS	DROUGHT	FLOOD	DROUGHT	WINDSTORM
2 251	831 500	475 000	500 000	979 000	1 989
n/a	n/a	965 million M	463 million M	1.25 billion M	3.2 million M
1991 - 2002	1991 - 2002	2007	2010/11	2015/16	2021

Figure 3. Number of people affected by, and monetary cost of, disasters in Lesotho

The economic analysis further revealed that negative impacts on agricultural production will have quantity, quality and price effects, impacting the availability, affordability and nutritional value of food, thereby worsening food insecurity. Given the existing levels of food insecurity and poverty in Lesotho, the burden on the state to provide income, food and agricultural production support to households will intensify. Thus, government (public) expenditure on social assistance (e.g., grants, school food programmes and agricultural inputs and subsidies) will need to increase. Social assistance already plays a vital role in food access for many households and the public expenditure budget allocated to social assistance was LSL1.8 billion for 2019/20, 9.5% of the total budget.[148]

Worsening food insecurity and malnutrition has a cascading effect on the health system and human capital through increased mortality, illness and disability. Over the long-term, this leads to a greater burden on the health system, raising costs and necessitating trade-offs with other sector spending. There is also a significant loss to the economy as a result of impacts on human capital. The 'cost of hunger' in Lesotho has been estimated at LSL1.9 billion (2014), 7% the GDP of that year.[149]

Climate change impacts in Lesotho will also increase disaster management needs. Presently, the average annual cost of disaster response in Lesotho is estimated at LSL295 million (2019/20), 1.6% of total budget expenditure (World Bank, 2019b). Costs for more infrequent and severe shocks are estimated to be much higher. Total funding mobilized to respond to the 2015/16 drought was LSL1.25 billion, 3.6% of GDP in 2016. Under climate change projections, it is estimated that the costs associated with the 2015/16 drought (an El Niño event) would occur approximately every five years (World Bank, 2019b). Extensive disaster management costs draw public funds away from other budget allocations; an increased frequency and severity of extreme events can create fiscal vulnerability and impact economic development. Over the long-term, more frequent and severe extreme events erode household resilience leading to, or worsening, poverty and food insecurity.

The economic analysis revealed overwhelming evidence for the cost effectiveness of the project compared to the no-go option. Cost effectiveness has also been considered compared to a number of potential alternatives under each of the three components.

Regarding the design of Component 1, the underlying project logic of linking early action (Component 1) to investments in longer-term interventions that support resilience (Components 2 and 3) is backed by a growing collection of evidence on its benefits. A 2018 return on investment study conducted by WFP in Nepal on implementing the FbF approach found that US$22 million can be saved when responding to an emergency of an average size (175,000 affected people). The same study found that over 20 years, US$34 and 42kg of CO2 emissions can be saved per dollar invested, after deducting the investment cost. When Forecast-based Financing is combined with early response to a climate shock and resilience/disaster risk reduction activities, the benefits are maximized. A 2018 USAID study on Ethiopia, Kenya and Somalia indicates that early response to drought, combined with safety net transfers and resilience-building activities, could over a 15-year period save US$4.3 billion, or an average of US$287 million per year. A DfID-funded study also found it to be cost effective, with benefit-to-cost ratios ranging from 2.3:1 to 13.2:1, depending on the country.[150] The

[147] World Bank. 2019. Lesotho Climate-Smart Agriculture Investment Plan. The World Bank, Washington.
[148] GoL and UNICEF. 2019. Lesotho social protection budget brief 2019-2020. Ministry of Finance, GoL, and Social Policy Section and UNICEF Lesotho.
[149] AU (African Union). 2016. Cost of Hunger in Lesotho Report. African Union.
[150] Economics of Early Response and Disaster Resilience Study: lessons from Kenya and Ethiopia (2012); available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/67330/Econ-Ear-Rec-Res-Full-Report_20.pdf

same study showed that early response is far more cost-effective than late humanitarian response: for every USD 1 spent on disaster resilience, USD 2.9 was saved in potential humanitarian expenditure.

For the early warning/early action (EW/EA) elements of Component 1, now referred to as anticipatory action (AA), two main alternative approaches were considered for phase I of the project: the more traditional EW system approach, and the more innovative Forecast-based Financing (FbF) approach. FbF builds on the framework of a traditional EWS, which is often heavily focused on meteorological service capacity-strengthening, by building and strengthening the needed components to define activities that can be initiated or scaled-up *before* the impacts of a natural hazard (such as drought) occur. The key to the success of FbF is the emphasis on developing government capacity to plan ahead to anticipate, absorb and prepare for the impacts of climate-related disasters as part of a more comprehensive and well-integrated disaster risk management system that includes disaster preparedness, anticipation and mitigation (Component 1). This is in the interests of impact and well as cost effectiveness. FbF does not constitute additional financing, but centres on developing these enhanced capacities so that the government and other key players in EA/EW can use the existing funds within the government budget as well as those of agencies and NGOs more proactively and effectively. There is good evidence of the ownership of the GoL of the approach adopted, as well as early evidence of the cost effectiveness of the AA response implemented in 2023. From September 2023 to January 2024, anticipatory assistance was implemented through the distribution of agricultural inputs and associated training, cash, provision of safe water, and dissemination of early warning messages. This activation of USD 3,192,466 enabled households to better cope with the El Niño related drought's impacts by bolstering their awareness and preparedness and protecting agricultural production among vulnerable populations.[151]

Phase I of the project supported not only the development of SOPs specific to the three target districts but also the development of capacities at the national level to support the SOPs, thus ensuring sustainability in the long run and enabling the government to replicate the approach in other districts and scale it up at national level. Leveraging on these existing capabilities in phase II to develop SOPs for drought across the remaining seven districts is a cost effective way to proceed in phase II; in fact, SOPs for drought for Thaba Tseka, which was not one of the targeted districts under phase I, have already been developed, thus showing GoL-supported upscaling.

The project did not allocate funding for actions foreseen in the drought SOPs but was able to leverage additional funding with support from WFP to implement the AA response in the three project districts and Thaba Tseka. Moreover, activities under Component 3 were able to demonstrate the types of early actions communities could take, specifically regarding asset creation planning (when and where) and how the S2S forecast could be linked to these actions, thus providing a holistic approach from early warning to early action. Under phase I, the approach will still be analyzed and documented as a case study to further inform the development of a national system in the country and sensitize key stakeholders on effective use of early warning information. The evidence of the cost effectiveness in terms of financial costs and livelihood impacts will be documented once the end term survey has been conducted.

Regarding the design of Component 2, an alternative considered for phase I was to implement a more discrete project-level set of awareness raising (AR) activities. However, this would perpetuate the observed situation of multiple parallel AR interventions on climate change, implemented under different donor-funded projects, which has led to duplication of activities and an ineffective use of scarce resources. Thus Component 2 was designed to adopt the more systemic and institutionalised approach of a National Climate Change Communication Strategy (NCCS), through which the Climate Change Unit within LMS is able to ensure coherence of all ongoing and future projects, and thus cost effectiveness of existing and future interventions. This is proving to have good results, with strong ownership on the part of LMS and good buy-in amongst other stakeholders. Thus, it would not be cost effective to deviate from this approach under phase II, which will continue to provide support to enable the full operationalisation of the District Action Plans on AR and CC communication. Further, the improved awareness and understanding of climate change and adaptation responses promoted under Component 2 is designed to ensure that activities under Component 3 are fully owned by the communities as well as managed and maintained in the long run beyond the project. The evidence from the 'graduated' project sites of phase I indicates that this approach is proving effective; these centres of excellence will serve as cost-effective forms of peer-to-peer learning in phase II.

Regarding the design of Component 3, an alternative considered in phase I was to implement the resilience building activities in line with the existing approach of the GoL's Rural Public Works IWM Programme (RPWP), known as *fato-fato*, which was estimated to cost the government USD 4 million in 2016[152]. However, an evaluation found that the shorter-term approach of the RPWP and associated problems, including poor targeting, lack of maintenance for the constructed structures, and inadequate M&E, has undermined the RPWP's cost effectiveness.[153] Thus, using AF support, the GoL, supported by WFP, implemented community asset creation, enabled through the CBT mechanism, in a longer-term and more predictable fashion, underpinned by solid awareness raising and behaviour change activities. In the phase I project sites that are considered to have graduated, there is good evidence of ecosystem and land restoration

[151] WFP (2023) Anticipatory Action against El Niño: WFP's regional response in Southern Africa. Briefing note.
[152] Lesotho News Agency, 2015 Forestry Ministry is hiring over 10 000 people per month, 24 June 2015.
[153] WFP (2017) Evaluation of Fato Fato Programme in Lesotho. Three volumes.

underpinning increased income generation and livelihood diversification for youth, women and other community members.

The annual cost of land degradation in Lesotho is estimated at USD57 million, equivalent to 3.6 percent of the country's GDP.[154] Massive soil erosion and loss of scarce agricultural land have resulted in extremely low agricultural productivity levels: land productivity averaged about USD70 per hectare per year compared to the Southern African regional average of about USD120 per hectare per year for the period 2008-2013; cereal yields average less than 1,000 kg per hectare, failing to meet the SADC Regional Indicative Strategic Development Plan (RISDP) target of achieving at least 2,000 kg per hectare.[155] It is apparent that addressing land degradation and building integrated climate adaptation interventions on this, through the risk layering approach, will serve to reduce these costs and generate returns for the GoL as well as for community members.

A cost-benefit analysis was conducted of five different adaptation options implemented under phase I to determine their economic efficiency and effectiveness in building community members' resilience to climate change impacts. The five adaptation solutions considered were land restoration, short cycle livestock, keyhole gardening, communal gardening and orchard establishment. Based on a lifespan of 12,15 and 20 years and using a discount rate of 5%, the project interventions, except for communal gardening, displayed net present value (NPV) of M30 million, M19 million, M42 million, and M4 million respectively. Thus the four adaptation solutions were found to be economically viable, economically efficient, and to display a great potential to increase community adaptive capacity by generating revenue from sale of the produce and to reduce community vulnerability through consumption of some of the produce. However, the communal gardening intervention displayed a negative economic NPV of M35 million indicating that under present implementation conditions it was not economically viable. With increased training and supervision, as well as ensuring water supply, communal gardening, which has important social co-benefits, too has the ability to increase community adaptive capacity to climate change.[156]

Going forward into phase II, the project will continue the local adaptation approach while integrating key recommendations from the economic analysis of adaptation options study. Phase II will replicate the land and wetlands restoration activities to cover larger areas so that the benefits of soil erosion control and ecological regeneration can be achieved at a larger scale. Orchard establishment, short cycle livestock and keyhole gardening will also be replicated because they are cost effective and valuable climate change adaptation interventions. See **Annex 9** for a summary of the economic analysis of adaptation options study.

II.D. Consistency with national or sub-national sustainable development strategies

~~The proposed project is fully aligned with the National Strategic Development Plan (NSDP)-II 2018-19/2022-23, which prioritizes the development of the agricultural sector and identifies three broad areas of strategic action: (i) sustainable commercialization and diversification of agriculture, (ii) a well-functioning agri-food system, and (iii) rehabilitation of rangelands and wetlands. Priorities for action within these areas include: (i) improved technology and infrastructure (including irrigation and climate smart agriculture); (ii) increased production of high value crops and livestock products; (iii) the development of institutional frameworks for producer and industry organizations; (iv) building the capacity of farmers to benefit from these institutions; and (v) the development of value chains and agricultural markets. The NSDP-II also calls for the need to scale up current nutrition systems towards strengthening human capital and expanding the use of water harvesting for irrigation. Gender and climate change are indicated as critical cross-cutting issues.~~ Several policies and strategies, including Vision 2020, National Climate Change Policy (2017), Lesotho Food and Nutrition Policy (2016) and Lesotho Zero Hunger Strategic Review (LZHSR) accord high priority to scaling up climate-smart practices and actions to promote agricultural adaptation and increased food security, achieving zero hunger by 2030, access to adequate food and healthy diets all year round, ending malnutrition, doubling of smallholder productivity and incomes, and eliminating food loss and waste; all of these are key areas for IACoV phase II implementation.

Climate change and environment are cross-cutting themes for the extended Second National Strategic Development Plan (NSDP II) 2022/23 – 2027/8, which emphasizes the need to strengthen climate risk management, build resilience, address soil erosion and bad land management practices, and manage wetlands.[157] The NSDP-II also calls for the need to scale up current nutrition systems towards strengthening human capital and expanding the use of water harvesting for irrigation. Gender and climate change are indicated as critical cross-cutting issues. The project specifically addresses activities under several key performance areas (KPAs) of the NSDP II, primarily agricultural provisions under KPA I (climate-resilient methods, seed propagation, support to agricultural extension, commodities development); as well as all three priority topics identified under the 'Environment and Climate Change' cross-cutting theme, which are (i) Strengthen climate risk management resilience because Lesotho is experiencing devastating impacts of climate change and extreme

[154] Global Mechanism UNCCD, 2018. Country Profile of Lesotho. Investing in Land Degradation Neutrality: Making the Case. An Overview of Indicators and Assessments. Bonn.
[155] Charles Nhemachena, Greenwell Matchaya and Sibusiso Nhlengethwa. 2016. Agricultural Growth Trends and Outlook in Lesotho.
[156] Economic Analysis for Climate Smart Ecosystem Rehabilitation and Management Provided by IACoV in Mafeteng, Mohale's Hoek and Quthing. September 2023.
[157] The proposed project is fully aligned with the National Strategic Development Plan (NSDP)-II 2018-19/2022-23, which prioritizes the development of the agricultural sector and identifies three broad areas of strategic action: (i) sustainable commercialization and diversification of agriculture, (ii) a well-functioning agri-food system, and (iii) rehabilitation of rangelands and wetlands. Priorities for action within these areas include: (i) improved technology and infrastructure (including irrigation and climate smart agriculture); (ii) increased production of high value crops and livestock products; (iii) the development of institutional frameworks for producer and industry organizations; (iv) building the capacity of farmers to benefit from these institutions; and (v) the development of value chains and agricultural markets.

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weather conditions; (ii) Address soil erosion and bad land management practices; and (iii) Manage wetlands.[158] The project will further contribute to specific aims of the NSDP II, such as developing a Basotho Brand for farmers to export Lesotho produce; establishing a national seed propagation centre to enable agriculture production; and establishing fruits production and processing centres in the mountains. The monitoring and evaluation provisions of this project will further contribute to developing the robust monitoring and evaluation systems called for by the NSDP II.

The project is aligned with a number of the policy statement in ~~In addition to alignment with~~ the National Climate Change Policy (2017), including (i) Strengthen climate early warning systems and improve climatic information, including research and systematic observations; (ii) Enhance the resilience of water resources by promoting integrated catchment management, ensuring access, supply and sanitation; (iii) Promote climate-smart agriculture and food security systems; (iv) Enhance best practice for forestry and rangelands to mitigate and adapt to climate change; (v) Promote participation of gender, youth, and vulnerable groups; and (vi) Implement education, training, public awareness and communication programmes.

Additionally, the project is aligned with the National Adaptation Programme of Action on Climate Change (2007), the Nationally Determined Contribution (2017), the Technology Needs Assessment (TNA) and the various National Communications to the UN Framework Convention on Climate Change. The NAPA reiterates the ongoing crisis of severe food insecurity, failing livelihoods and high rates of malnutrition due to the adverse impacts of climate change on agriculture. Accordingly, the NAPA has classified agriculture as one of the socio-economic sectors that are particularly vulnerable to climate change, which require “immediate and urgent” special attention. Moreover, the NAPA categorizes the project area as one of high chronic vulnerability, with vulnerable communities at high risk of climate change and in urgent need of remedial adaptation activities. The project activities support the attainment of the following priorities identified in the NAPA: (i) Improve Resilience of Livestock Production Systems Under Extreme Climatic Conditions in Various Livelihood Zones in Lesotho; (ii) Promoting Sustainable Crop Based Livelihood Systems in Foothills, Lowlands and Senqu River Valley; (iii) Conservation and Rehabilitation of Degraded Wetlands in the Mountain Areas of Lesotho; and (iv) Improvement of Community Food Security Through the Promotion of Food Processing and Preservation Technologies. Lesotho started its TNA process in 2020 and has prioritised the Agriculture and Water sectors for adaptation, and Energy, and Agriculture, Forestry and Other Land Use (AFOLU) for mitigation.

Lesotho’s first NDC (2017) prioritised adaptation options that will permit higher co-benefits with respect to climate change mitigation, such as forestry-related and agriculture-related activities. The project will contribute to meeting the need identified in the NDC for enhanced adaptation capabilities for data collection, processing and provision across sectors, including the Agriculture, Forestry, Health and Water sectors. The country has now embarked on the process of updating and revising its NDC as per the requirements of the Paris Agreement. The total estimated cost of implementation of the 2017 NDC is USD 1.17 billion, including USD 821.86 million for mitigation measures and USD 355.75 million for adaptation measures. Financing for NDC implementation is needed from a combination of domestic and international private sector entities, domestic public sector, and international development cooperation funding. In addition to mobilising international climate finance, the proposed project will take steps to encourage national private sector financing for adaptation and will support the LMS to develop enhanced domestic revenue streams and a joined-up approach to climate-risk financing.

The project is further aligned with Lesotho’s Third National Communication to the UNFCCC (2021), which prioritises adaptation in the agriculture and water sectors, and the design has integrated the projections set out in the TNC. The project addresses a number of the capacity building needs identified in the TNC, including the inadequate institutional and technical capacity at the national, district and community levels, identified as one of the main barriers to the implementation of NAPA priorities, as well as the need for enhanced stakeholder engagement. Phase II of the project will support the full operationalisation of the National Climate Change Communication Strategy across Lesotho, identified as a priority in the TNC. In November 2023, Lesotho launched the National Adaptation Plan (NAP) process, which aims to reduce Lesotho’s vulnerability to the impacts of climate change and facilitate the integration of climate change adaptation in a coherent manner into relevant new and existing policies, programmes and activities. Currently there is no draft of the NAP, but it is expected that the project will be fully aligned with this, as it addresses and indeed takes further several key priorities set out in the climate change policy environment.

The Government of Lesotho is committed to the promotion of gender equity and empowerment, as demonstrated in the NSDP II, which requires all sectors to address gender issues through their development programmes. The Lesotho Gender and Development Policy 2018-2030 (NGDP) outlines areas of intervention in the advancement of gender equality and reinforces gender-positive legislation outlined in the NSDP II; the gender strategy and Gender Action Plan of the proposed project are fully aligned with this.

In addition to the above frameworks, the project advances the attainment of goals of the following sectoral policies and plans: Natural Range Resources Management Policy; Agriculture Sector Strategy; Food Security Policy; National Action Plan for Food Security (NAPFS); Energy Policy 2015-2025; National Environment Act 2008; National Gender and Development policy, 2003; National Youth Policy; Lesotho National Nutrition Policy (draft), National Food and Nutrition

158 GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.

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Sector Strategic Plan; Social Development Policy (draft); National Disability Mainstreaming Plan 2021-2025, and to the Lesotho National HIV and AIDS Policy.

In addition to national government priorities, the project aligns with the pillars of the 2024–2028 United Nations Sustainable Development Cooperation Framework (UNSDCF) and the WFP strategic outcome 4 of the ongoing Country Strategic Plan (CSP) 2019-2024, as well as strategic outcome 3 of the 2nd Generation WFP CSP 2025-2029 which aims to enhance and strengthen more inclusive and climate resilient food systems and sustainable livelihoods. The project will contribute to the achievement of the following Sustainable Development Goals (SDGs): SDG 2: Zero Hunger; SDG 5: Gender Equality; and SDG 13: Climate Action.

Alignment with sub-national plans and priorities: The project is aligned with the sub-national development plans which in Lesotho take the form of district plans, compiled by the District Planning Units. District plans are mandatory under broader frameworks like the Local Government Act and the National Decentralization Policy, which guide how local needs are assessed and addressed. All of the district plans in the IACoV phase II districts highlight the importance of addressing key risks to agricultural production and rural development, including climate change risks, gender inequalities, and nutrition challenges. Moreover, IACoV phase I has contributed to the development of local adaptation planning, through the CBPP process, which will be continued under phase II, as well as to the integration of community-identified adaptation and development priorities into district-level planning.

II.E. National technical standards

Implementation of this project will be governed by the overarching policy and regulatory framework, which includes guidelines, standards and regulations that will be adhered to. Policies and laws include the Constitution of Lesotho; Environment Act 10 of 2008; the Water Act, 2008; Lesotho Food Security Policy 2005 and Food Aid Policy 2000; the Land Husbandry Act 1969; the National Plan of Action for Nutrition 1997. Relevant guidelines and regulations include the Physical Planning Guidelines of Lesotho; the Range Management and Grazing Control Regulations 1980, 1986 and 1992 and 1993; as well as relevant standards proscribed by the Lesotho Standards Institution (LSI), and the Department of Standards and Quality Assurance (DSQA) of the Ministry of Trade and Industry, as set out in the table below. The LSI was only established in 2020 and the Lesotho Standards Institution Act, 2021, was enacted in November 2021; thus, in many cases Lesotho still uses standards set by the South African Bureau of Standards (SABS).

The Environment Act 10 of 2008 is the framework legislation that encapsulates the policy guidelines and standards for sustainable environmental management in Lesotho. The only adaptation option that may require a detailed environmental impact assessment (EIA) according to Sections 20, 21 and 25 of Environmental Act 2008 would be the sand dams; however, as these do not exceed two metres in height, this is unlikely to be the case.; similar sand dams have been constructed in Lesotho without triggering EIA requirements. Sand dams are a powerful near-term intercession for restoring hydraulic conditions in Lesotho's degraded watersheds. They are located in ephemeral stream beds at an optimal location where the stone masonry wall will retain the most sand, for the least height of wall. In Lesotho they can be built on solid base rock which is found along the bottom of most water courses and provides a solid foundation. The sand dams are constructed using sand, stones, rocks and boulders, and a modest amount of Portland cement. No steel reinforcing is necessary. Please see **Annex 7** for additional technical details on the sand dams. The national EIA standards, as set out in the Environment Act, require that a comprehensive project brief be submitted to the relevant Lesotho Government Ministries (Environment and Agriculture) for evaluation and possible issuance of environmental clearance. Two months will be required to carry out the EIA studies and to submit a report to the relevant Government institutions.

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Part XIII of the Environment Act 10 of 2008 provides appropriate measures for integration of environmental education at all levels. The national standards set for environmental education shall guide rolling out of the climate change toolkits for teachers and the CC/FS/GEN/NUT nexus materials, as an add-on to the existing toolkit under Component 2. Project interventions under Component 2 will be in accord with the Strategic Plan for Education for Sustainable Development in Lesotho, which calls for education techniques that change behaviour and promote action-oriented competence using Participatory Learning Techniques (PLT). This approach will inform the climate change awareness raising strategy and communication activities, which will also use the synergistic approach of social and behaviour change communication (SBCC).

The project will abide by the Ministry of Environment and Forestry's national standards commonly known as "Work Norms Guide", which provides guidance for land reclamation and restoration and soil and water conservation activities that involve planting of trees, conservation agriculture, weeding, pitting, stone cutting and stone collection, diversion, silt trap, stone terrace, grass seeding, grazing land management, as well as dam water tank construction.

National standards of the Ministry of Water Resources emanate from the Water Act 2008, which provides for "Water Use Rights and Permit Standards". The project shall comply with the relevant sections of the Act to ensure sustainable utilization and conservation of water with regards to irrigation. However, as most project irrigation-related activities will be restricted to rainwater harvesting off household roofs, micro irrigation systems for household gardening use, and micro farm dams, it is not expected that water use permits shall be required for these activities. Irrigation interventions in Lesotho must adhere to the National Irrigation Policy, which provides detailed standards and guidelines for farmers and

block farming groups to form “Water Harvesting and Irrigation Associations” stressing the need for farmers to work together and manage water resources sustainably. The project will abide by these standards and guidelines, although all project irrigation activities will be small scale.

The Ministry of Agriculture, Food Security and Nutrition (MAFSN) provides policy guidelines for reducing and remediating the harm done to farmlands and crops, which remain significant challenges to crop farming in Lesotho. The project shall embrace relevant sections of the MAFS Policy of 2005 that align with Adaptation Fund guidelines. The project shall apply the standards of the Ministry of Small-Scale Businesses for establishment of cooperative societies, its operational procedures and relevant gender policies, and the Ministry of Social Development standards that protect women, the elderly, children and most vulnerable households.

The authority of Local Government Councils and traditional authorities (the Chiefs) over land and rangeland management is critical in this project.159 In either case, expert knowledge is required to reconcile, mediate and harmonize some gaps between the Community Council’s political interests and interference of the Chiefs’ traditional interests and opinions. The project will align with National Physical Planning guidelines of Lesotho, which are used by the Chiefs and Councillors when allocating land for development and farming.

The exact steps to ensure compliance with the national technical standards identified are set out in the table below, with key responsibilities; further detailed responsibilities for this will be allocated during the project’s Inception Phase. No further relevant standards were identified during FP development. Primary responsibility for ensuring that the relevant national technical standards are complied with will rest with the Technical Working Group, consisting of the range of technical partners involved in project execution, under the oversight of the Project Steering Committee.

Table 64. Responsibilities and steps for ensuring compliance with national technical standards

National technical standard	Responsible agency	Relevant output	Steps to ensure compliance	Licence or authorization certificate req.
WMO standards for provision and maintenance of AWS	LMS	Output 1.1.1	LMS on behalf of GoL is mandated to ensure adherence to WMO's guidelines and standards for procurement, installation, utilization and maintenance of Meteorological Instruments and Methods of Observation (WMO Manual on Codes, WMO-No. 8). The project will under the supervision of the LMS ensure that the procurement of AWS equipment adheres to WMO standards. This includes selecting equipment that meets WMO specifications for accuracy, reliability, and durability as well as establishing a routine maintenance schedule for AWS to ensure that all components are functioning correctly. This includes checking for wear and tear, cleaning sensors, and replacing parts as needed.	N/A
National standards for environmental education	MEF and Ministry of Education and Training (MOET)	Output 2.1.1 Output 2.2.1	Ensuring compliance with national standards for environmental education entails practices that align with established guidelines and objectives on education and outreach in the Lesotho National Environmental Policy (1998) and Climate Change Policy (2017). These standards typically focus on reviewing and integrating environmental education into school curricula, promoting sustainability, and fostering environmental stewardship. Led by MEF and collaborating with the MOET, IACoV phase II shall support environmental education including through the press, radio and TV, print media, social media, websites, public gatherings, meetings and workshops, and working with formal and informal education. The MOEF and MOET inspectors at national and district levels will carry out regular oversight in this regard.	N/A
Physical Planning Guidelines of Lesotho	Ministry of Local Government, Chieftainship, Home Affairs and Police (MLGHAP) MEF	Output 3.1.1 Output 3.1.2	For 3.1.1, the district administration offices under MLGHAP will ensure engagement of local communities, stakeholders, and the public in the planning processes. This includes seeking input through consultations, public meetings, and feedback mechanisms to ensure that planning decisions reflect community needs and preferences on asset creation under output 3.1.2. The Department of Environment, MEF, will assess and monitor the potential environmental impacts of project activities and provide guidance for implementation of measures to mitigate negative effects, over and above what is already contained in the project ESMP.	N/A
Work Norms Guide	MEF	Output 3.1.1 Output 3.1.2	In 3.1.1 in planning stage, the MEF defines the clear scope of work and sets clear, achievable goals and technical guidelines for execution of project activities in the project sites. Under output 3.1.2, the MEF ensures the operationalisation of work norms, provides clear communication of these to all community members, makes provision for periodic review and adjustment when necessary, and defines the processes for addressing and resolving conflicts, including via the Grievance Mechanism.	N/A

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[159] The powers of the Chiefs and those of the Community Councils have a bearing on the country’s Land Acquisition Policies, and Grazing Control Regulations 1980, 1986, 1992 and 1993 also remain critical to the project implementation.

Range Management and Grazing Control Regulations	Department of Range (DoR) Area Chiefs MLGHAP	Output 3.1.1 Output 3.1.2	Through inspection and monitoring, the Department of Range (DoR) and Area Chiefs ensure protection and management of rangelands. Under output 3.1.1 the DoR supports communities to establish grazing associations and grazing plans. In collaboration with the MLGHAP, the DoR guides, supports and monitors establishment of animal routes and fire belts to protect the rangelands under 3.1.2.	N/A
Water Quality and Water Infrastructure Development Standards	Ministry of Natural Resources (MNR)	Output 3.1.2	The MNR and Department of Water Affairs oversees water resources and management and ensures compliance of national standards through inspection of: (i) Water Quality Standards: Developing and enforcing national standards for water quality; (ii) Water Resources Management: Managing and regulating the use of water resources; and (iii) Infrastructure Development: Overseeing the development and maintenance of water supply and sanitation infrastructure.	Authorisation required for sand dams: to be applied for once localities are identified
Seed protection standards	MAFSN	Output 3.1.2	The MAFSN Research Department and MEF Department of Forestry, conduct inspections and tests to verify seed purity, germination rates, and disease resistance in the nurseries and seedbanks.	N/A
Standard procedure for tree planting	MEF	Output 3.1.2	MEF normally perform site inspection where the following issues are discussed with the land owner: (i) Purpose of planting trees; (ii) Matching species to site; (iii) Availability of reliable source of water; (iv) Protection of the intervention; (v) Proof of site ownership documents; (vi) Demonstration and supervision of both pitting and planting of trees; (vii) Training farmers on tree management; and (vii) Regular monitoring and evaluation.	N/A
Standards for licencing of cooperative societies	Ministry of Small Scale Businesses	Output 3.1.2. Output 3.1.3	Any cooperative society supported by the project will be established in accordance with the Cooperative Societies Act. The Cooperatives will adhere to any additional regulations or standards set including financial regulations, health and safety standards, or sector-specific guidelines.	N/A
General Standard for Food Hygiene	Ministry of Trade and Industry (MTI), Ministry of Health (MoH)	Output 3.1.3	Via inspection and monitoring, MTI Office of Food Safety (OFS) ensures food hygiene requirements from primary production until consumption and sets out the conditions for producing food that is safe and suitable for human consumption. Food processors and handlers are registered with the MTI and MoH for licencing for food hygiene compliance. Basic food handling training is provided by the OFS. The MTI carry out the feasibility, preliminary, factory, follow up and surveillance inspections. Laboratory testing of the foods is mandatory.	N/A

Since the above legal instruments were developed, new national and international developments have rendered some of the guidelines inadequate with respect to the escalating negative environmental and climate change trends affecting the livelihoods basis of vulnerable people. Thus, the project will comply with the above national standards, but will also adopt best practice international guidelines, for reducing vulnerability and promoting sustainable development while addressing climate change impacts. In this regard, the AF's environmental and social standards are invaluable and will be adhered to, as is further indicated in **Section II.K** and in the project ESMP (**Annex 7**).

II.F. Complementary projects and non-duplication

There are multiple climate change-related projects concurrently active or in the pipeline in Lesotho, including some activities in the targeted project area. While previously these projects were functioning in silos, IACoV phase I had success in aligning with and working in an integrated fashion with several projects. Notably, the LMS/UNEP/GEF Early Warning Phase II project and Component 1 of IACoV I shared a Chief Technical Advisor, co-funded upgrades to the HPC and provision of additional AWS to improve forecasting and early warning and shared a PSC. IACoV encouraged the revitalisation of the District Project Implementation Teams (DPITs) to strengthen coordination between projects and to deepen government ownership over the projects. IACoV phase II will build upon these achievements and continue to harness the experiences of IFAD, Catholic Relief Services (CRS), World Vision, FAO and GEF-funded and other relevant projects in the southern districts and Thaba Tseka. Where the proposed project sites overlap with previous or ongoing projects, the project will ensure that duplication of efforts is avoided while complementarities are strengthened, and will build on, complement and /or strengthen other investments and avoid duplication, as set out in **Table 7~~5~~** below.

Table 7~~5~~. Complementary projects and avoiding duplication in IACoV Phase II

Project Title / Amount	Funding / Accredited and Implementing institutions	Timeframe / locations	Strategy / activities	Complementarity with proposed project
ONGOING				
Strengthening climate services in Lesotho for climate resilient development and adaptation to climate change (EWS Phase II) Amount: US$ 5 million GEF grant	Funding Agency: Global Environment Facility (GEF)-LDCF Accredited Entity: UNEP Executing Agency: Lesotho Meteorological Services (LMS)	Originally 2019-2023; no-cost extension approved until 2025. Districts for piloting: Quthing, Thaba Tseka and Mafeteng	The focus of EWS Phase II focus is on developing the national early warning system for shorter-range hazards (flooding, frost, extreme temperatures etc.). This has involved repair and upgrade of existing climate monitoring equipment and installation of new meteorological equipment. EWS II facilitated the training and capacity development of additional agro-meteorologists, forecasting officers, senior technical officers, and GIS and IT operators/technicians. The project had limited coverage on the ground, having piloted community-based EWS in only 6 community councils in 3 districts.	Strong synergies have been developed between IACoV I and EWS II, both of which are still ongoing, including close collaboration on developing a sub-seasonal to seasonal (S2S) forecasting system, with IACoV focusing on drought to complement the EWS II focus on shorter-range hazards; as well as on early warning products and SOPs on drought early action so that the methodology could be exported by both project teams to other non-common districts. The two projects held joint awareness raising activities under the National Climate Change Communication Strategy (NCCCS) developed under IACoV I. There was / is no overlap in targeted project sites. The projects will continue to share experiences on the improved use of generated climate information, working in different districts, to inform community adaptation planning and actions; this will be taken forward in IACoV II as set out in section II.A. IACoV II will build on EWS II training of LMS district Observers, to better equip them to play a role in LMCS.
Support to Integrated Catchment Management in Lesotho (ICM) /RENOKA Amount: Euro 28 million	Funding Agency: EDF / BMZ Supervising Entity: GIZ Executing Agency: Department of Water Affairs	Initially 2020 - 2023 But project is still ongoing. Districts:	The project actions aimed to institutionalise and fully implement ICM across Lesotho, based on gender equality and climate adaptation principles, through support to the Department of Water Affairs. Includes establishing effective and efficient institutions for ICM, with equitable representation of women and youth. Focus is on the 'water-energy-food security' nexus. Includes IGA for subsistence farmers and other groups.	The ICM goals of combatting land degradation and the depletion of water catchments have great synergy with IACoV I and II projects. The resilience building activities under Component 3 of IACoV have been implemented within the ICM approach, through strong collaboration with the DWA, a member of the IACoV PSC, as well as through the decentralised project management and implementation. There was no direct overlap between the priority sub-catchments of the ICM implementation. Going forward, IACoV II will continue to develop synergies with different ICM initiatives within RENOKA to promote integrated natural resources management.
Restoration of Landscapes and Livelihoods (ROLL) project Amount: US$ 36.2 million (mix of loans and grants plus in-kind support from FAO)	Funding Agency: IFAD / OPEC / GEF Supervising Entity: IFAD Executing Agency: MoEF	2021 – 2029 17 sub-catchments in 6 districts (Leribe, Berea, Butha Buthe, Thaba Tseka, Qacha's Nek, Maseru	ICM to enhance environment and thus livelihoods. Under Component 1 of ROLL, communities are organised into coalitions e.g. people interested in grasslands (livestock owners, handicrafts makers, traditional healers) that would manage a common landscape. A fund for landscape restoration is being established as part of exit strategy that will continue beyond project lifespan; currently exploring modalities for this to synergise with the Environment Fund, the Forest Fund, and international sources like the carbon market. Trying to align with payments for ecosystem services (PES) approach. Although it is a 7-year project, the coverage is insufficient to address the needs.	ROLL has adopted CBPP as conducted by IACoV I as best practice; takes communities to IACoV I project sites and considers there is a lot they can still learn from IACoV, including on landscape rehabilitation and IGAs. Going forward, IACoV II will continue to share experiences with ROLL, and will specifically aim to learn lessons on ROLL's employment of technology and innovation such as turning alien invasives into briquettes, medicines and cosmetics for implementation of Component 3 and the IGAs. ROLL will develop a compendium of good practices under knowledge management activities, which IACoV II will consider during the further development of its own L&KM strategy. ROLL and IACoV I have already collaborated on a National Dialogue on NRM held from 7-9 August 2024 in Maseru and will continue to collaborate during IACoV II on NRM governance, particularly in the new district of Thaba Tseka. ROLL and IACoV will not work in the same sub-catchments but will use the same technical staff in the Ministry and collaborate on district-level planning via the PITs, which IACoV I has actively worked to revitalise.

Project Title / Amount	Funding / Accredited and Implementing institutions	Timeframe / locations	Strategy / activities	Complementarity with proposed project
Smallholder Agriculture Development Programme phase II (SADP II) Amount: US$ 57 million	Funding Agency: IFAD / World Bank / Govt. of Japan Supervising Entity: World Bank Executing Agency: MAFSN	2019 – 2026 All 10 districts.	3 main strategies: (i) Climate Resilience and Nutrition Security; (ii) Commercialisation; and (iii) Capacity Development. Through technical assistance and investment support, the project aims to scale up best practices in CSA and sustainable land management to mainstream climate and environmental considerations into agriculture as well as incentivize a shift from uncompetitive maize monocropping to high potential value chains, including horticulture, potatoes, small-scale piggery and small-scale poultry.	There is considerable synergy between the aims and activities of SADP II and IACoV phases I and II. Under IACoV phase I, the project has benefited from the impact of SADP II on extension services for CSA and the production of stress-tolerant crop and livestock breeds. This was achieved by regular coordination meetings with SADP II stakeholders at district and community levels to align project goals, share resources, and synchronize activities. IACoV phase I has harnessed synergies with the nutrition clubs supported under SADP II, and phase II will build further on the advocacy campaign on nutritious diets conducted by SADP II. IACoV II will not duplicate the value chain work conducted under SADP II, but will focus on separate VCs, while drawing on the lessons learned in VC development by SADP II. Despite the significant investment of SADP II, SH consultations revealed the need for enhanced support, particularly a more programmatic approach to extension training, and for additional value chain support. SADP II supported an early version of the Agro-weather Tool and piloting of integrated market Information and advisory services; IACoV II will assist LMS to significantly enhance forecast accuracy and to develop agro-met advisories, this initial e-marketing app will be further developed.
Local Climate Adaptive Living Facility (LoCAL)[160] Amount: US$ X million	Funding Agency: AfDB (ACCF) Supervising Entity: UNCDF Executing Agency:	2020 – ongoing Pilot was in Mohale's Hoek; unclear where scaling up will occur	LoCAL uses Performance Based Climate Resilience Grants to channel finance to local govt. for locally-led adaptation. District Technical Teams and Community Councils implement jointly; DTTs provide TA to Councils. LoCAL has financed 16 water supply projects and 1 range management project in 4 Councils (Khoelenya, Lithipeng, Qhoasing, and Senqunyane).	LoCAL has now moved from a small pilot phase into broader implementation. Synergies between the projects will be ensured through the DDTs that provide technical assistance and are the key implementation channels for both projects. LoCAL has been required by the GoL to use the CBPP approach, based on IACoV I's successful implementation. IACoV II will draw on the LoCAL approach for integrating the community adaptation plans into council, district and other plans; through this, the Community Council Secretary provides an advisory role to council and assists in developing council plans, coordinating plan implementation and reporting.
UNDP Small Grants Programme (SGP) Amount: US$600,000	Funding Agency: GEF Supervising Entity: UNDP. Executing Agency: Various	In development for GEF-8. Senqu River basin; Quthing	Funds environment/conservation CBOs. Past 5 – 6 years focused in Senqu River catchment: Mokhotlong, Qacha and part of TT. Will target lands with biodiversity hotspots. Includes support to ecotourism activities for small groups and associated IGAs.	IACoV phase II will continue to hold discussions with UNDP regarding potential synergies, once the SGP for GEF-8 has been elaborated. SGP can use 30% of resources outside of the agreed priority landscapes.
IWM for improved agro-pastoral livelihoods in Sebapala sub-catchment/SEBAPALA Amount: US$2.1 million	Funding Agency: GEF Supervising Entity: UNDP Executing Agency: MEF	2021-2026 ongoing. Quthing district	SEBAPALA aims to mainstream sustainable rangeland management and restoration of watersheds to combat land degradation, enhance the flow of agro-ecosystem goods and services and improve the livelihoods of agro-pastoral communities, and mainstream gender priorities in Sebapala. Quthing district.	IACoV II will scale up the complementarity on application of the community based participatory planning approaches that enhance community ownership and sustenance of the activities on ecosystem regeneration and livelihood improvement at Sebapala council that will be implemented by the SEBAPALA project.

[160] The objectives for LoCAL-Lesotho include increased transfer of climate finance to local governments through national institutions and systems for building verifiable climate change adaptation and resilience; a standard and recognized country-based mechanism which supports direct access to international climate finance. LoCAL has a focus on creating adaptation opportunities and benefits that favour women and vulnerable groups.

Project Title / Amount	Funding / Accredited and Implementing institutions	Timeframe / locations	Strategy / activities	Complementarity with proposed project
Alleviating Poverty through expanding fruits production **Amount: USD $**	Funding Agency: India and South Africa Supervising Entity: UNDP Executing Agency: MTI	2023-2028 On going Leribe	The project supports the government of Lesotho to harness the potential of fruit production to boost agricultural productivity, create economic opportunities, and improve livelihoods, ultimately contributing to poverty alleviation.	The last mile delivery and impact-based forecasting activities will be prioritised in the IACoV phase II and will complement the fruit production farmers in Leribe to use climate services information productively.
UNDER PREPARATION				
Nature based solutions for increased climate resilience in vulnerable rural communities of Lesotho Amount: US$ 10 million	Funding Agency: GEF LDCF Supervising Entity: IUCN Executing Agency: Ministry of Environment and Forestry	Concept approved for a 5-year project. 4 districts: Maseru, Mafeteng, Mohales' Hoek, Quthing	Implementation of Nature-based Solutions (NbS) to address the impacts of climate change, land degradation and biodiversity loss. Mainstreaming into policy and community-level interventions. Includes innovative financial tools for community-level ecosystem restoration and climate-resilient value chains.	Relevant areas for potential synergy with IACoV-2 include agricultural and non-agricultural value chains upgrading (honey production, fruit production and others suited to each local context); and youth driven tree planting brigades/groups and community nurseries on lands owned by smallholder farmers to protect against soil erosion, improve land quality and produce fruit for additional income. Collaborative efforts will also include promotion of women in apiculture and cottage industries to improve livelihoods
Green Climate Fund Country Programme Amount: US$ 5X million	Funding Agency: GCF. Supervising Entity: still to be decided. Executing Agency: MEF	Currently under development. Districts: Mokhotlong and Berea	The programme will reportedly focus on climate resilience in the highlands, with respect to grasslands management and agriculture while promoting alternative livelihood options such as eco-tourism or artisanal products.	IACoV projects Phase I and phase II will actively participate in the further development of the GCF country programme for Lesotho and will synergise activities wherever possible.
Promoting Conservation, Sustainable Use & Fair & Equitable Benefit-sharing from Medicinal and Ornamental Plants Amount: US$ 2.9 million	Funding Agency: GEF Supervising Entity: UNDP. Executing Agency: Ministry of Defence, National Security & Environment	Recently approved. 2024 – 2028 Quthing included.	Targets protected areas, especially hotspots where there is serious harvesting, will work with research institutes. Focus on research and development, may not work on value chains. No standalone component on conservation as funding is under the Nagoya Protocol.	No direct synergies but IACoV II will maintain dialogue with the PMU to ascertain if any potential complementarities arise during implementation.
Unknown. FAO projects in pipeline Amount: US$2 X million	Funding Agency: GEF Supervising Entity: FAO. Executing Agency: MEF	Pipeline 2024-2028 Thaba Tseka, Mohale's Hoek	FAO has several synergistic projects on CC adaptation in pipeline. One of these is on Water for Agriculture; and including utilisation of ICT to digitalise communities and farming as well as to improve extension services and market access. The projects are yet to be approved officially by the GoL.	IACoV II will maintain dialogue with FAO to identify specific complementarities as the projects are further defined.

II.G. Learning and knowledge management

Phase II of IACoV will have a dedicated outcome, budget, and human resources to promote learning and knowledge management. Under Outcome 2.3, the project's learning, knowledge management and communication strategy (L,KM&CS) will be developed. This will include a simple reflection template and lessons learning schedule for the project at all levels. Enhanced lessons learning and visibility for IACoV phase II will be promoted. This builds on specific findings of the MTR as well as the results of the stakeholder and community consultations process conducted to design phase II. Building on the experience with action research under phase I, the project will design and commission a strategic approach to action research, that specifically targets important project elements, such as practical and efficient ways to enhance market access and IGAs for different sub-groups, and the impacts of the project's integrated CC/FS/GEN/NUT approach.

To implement a recommendation of the ICARA as well as the project Gender Assessment, the project will gather and disseminate gender-related lessons learned. The lessons learned on gender equality and women's empowerment outcomes will be gathered through surveys and more qualitative case studies to build evidence. This should capture aspects of increased decision making and autonomy, increased opportunity for livelihoods for women, as well as improvements in dietary diversity within the households.

Under Activity 2.3.1.b, the project will design a comprehensive training strategy to cover needs of all three components and M&E, in order to give effect to the programmatic approach to training that has been identified as an essential step to build GoL capacities and systems to ensure sustainability. Developing a comprehensive training strategy that covers all three components as well as M&E, as an early step in the project's implementation, will further promote the harnessing of synergies and efficiencies across capacity development activities. The focus will be on concrete skills development, as opposed to the awareness raising activities that will additionally be performed under Component 2. Implementation of the training strategy will take place under each component.

The project's internal learning system will develop a feedback loop to ensure lessons are learned from community feedback and used continuously throughout the project lifespan to refine the implementation approach. The feedback loop will also incorporate learning from the private sector – agricultural buyers, financial services providers, input suppliers – to enable more market-responsive activities and to expand the scale of investors. The feedback loop will strengthen the existing structures and processes of phase I; the narrative under **output 2.3.1 above** contains a detailed explanation of the elements and steps of the feedback loop.

Regular stakeholder engagement meetings will be held through the project structures (PSC, PTC, DPITs, etc.), involving project teams, research institutions, and relevant government departments, at which the findings from the data analysis will be presented and areas of improvement discussed. The project's support to the multistakeholder NCCC will provide an avenue of broader dissemination of lessons learned on an ongoing basis, including through the regular series of seminars to be convened under the auspices of the NCCC and LMS. Evidence generation, documentation and knowledge sharing will be conducted throughout the project life cycle. This will involve documenting the experience with and impact of the integration of the CC/FS/GEN/NUT nexus, the targeted packages of support for youth and for herders, the effects on GEWE of the project activities, and documenting other changes made and lessons learned, sharing this knowledge internally within the project team and externally with relevant stakeholders, including research institutions, government bodies, NGOs and private sector.

Sensitisation workshops and training sessions for community members, project teams, GoL at different levels, and other stakeholders will be organised under various outputs (i.e. outputs 1.1.2, 1.2.1, 1.3.1, 2.1.1, 3.1.1, 3.1.2, 3.1.3), at which insights from the feedback loop can be presented, best practices discussed, and knowledge exchange facilitated to enhance the overall learning process. With respect to peer-to-peer learning, in addition to supporting and documenting the Climate Champions approach, exchange visits to IACoV and other centres of excellence will be organised and documented, and the GoL assisted to develop a system to continue with this approach.

The Project's M&E system, which is intertwined with the L,KM&C system as the description of the feedback loop under **output 2.3.1 above** indicates, will track and measure the intended qualitative results of training and sensitisation activities to bring about the desired outputs and outcomes. This will be done primarily through the mid-term evaluation and the final evaluation of the project. A methodology including surveys and focus group discussions that allows for gender- and sub-group disaggregation will be developed during inception and integrated into the baseline survey, the MTR, and the end survey, which will be used in the final evaluation as well to provide for consistency and good evidence generation. A knowledge product will be developed in the form of a policy brief that highlights key lessons learned from the project, which will include whether and how the intended qualitative results of training and sensitisation activities helped to bring about the desired outputs and outcomes.

Communications materials based on lessons learned will be developed and disseminated on an ongoing basis throughout project implementation – for example, as a series of 'Learning in Action' notes. Results-on-walls displays will be developed and updated continuously on IACoV offices at national and district levels. Building on phase I's approach

to develop billboards in each project district, this will be expanded to include the new district of Thaba Tseka, schools with IACoV activities, and electronic billboards in Maseru. 'Learning in Action' notes and formal findings from M&E will be integrated into case studies and policy briefs. The lessons learning process will then be linked to policy advocacy, grounded in evidence generated, on ley project activities, to promote institutionalisation of the project approaches by the GoL for sustainability into the future.

The set of knowledge sharing materials and products envisaged is provided under output 2.3.1 above. This included *inter alia* case studies and impact analysis reports, which present evidence generated by project staff and research institutions on the impact of innovative project activities. These reports would analyse and document the project's impact for policy advocacy within Lesotho and for regional and global knowledge sharing. Gender-related lessons learned will be specifically set out in a case study and report analysing the lessons learned on gender equality and women's empowerment outcomes.

Additional knowledge sharing materials and products will include the following: workshop and training materials, Learning in Action notes, video clips, Results-on-Walls displays, project billboards, electronic billboards, project fact sheet, and project policy brief, summarizing key lessons learned from the project, including innovative elements like IBF and use of the CC-FS-GEN-NUT nexus as a central organising concept. The channels through which these knowledge products will be disseminated internally and externally include the following: (i) GoL and WFP websites and social media; (ii) Stakeholder workshops; (iii) Community activities; and (iv) Global and national webinars, seminars and conferences.

II.H. Consultative process

The project team adopted a participatory approach to the development of the Full Proposal, under the auspices of the structures involved in managing and governing phase I of the IACoV project, namely the multi-stakeholder National Climate Change Committee, as well as the Project Technical Committee (PTC), comprised of representatives of the MEF, MAFSN, and WFP. An initial scoping phase included a series of bilateral consultations with a range of different stakeholders, including Lesotho Meteorological Services (LMS), which is the DA to the AF, the Ministry of Agriculture, Food Security and Nutrition (MAFSN), Ministry of Environment and Forestry (MEF), Ministry of Local Government, Chieftainship, Home Affairs and Police (MLGCHAP), Ministry of Education, and Ministry of Gender. The scoping process confirmed the need for development of a second phase to scale up climate change adaptation activities of IACoV I, which had been expressed in meetings held with line ministries during the review of midterm evaluation findings. This expressed need was aligned with inputs from community members in *ad hoc* focus group discussions during the implementation of phase I requesting that the project actions be scaled up. In view of this broad positive feedback, the design of phase II was undertaken.

During detailed project design, an expanded series of bilateral consultations was conducted between May and August 2024 with a range of different stakeholders. These included (i) government ministries: LMS, MAFSN, MEF, Disaster Management Authority (DMA), MLGCHAP, Ministry of Education, and Ministry of Gender; multistakeholder structures: National Climate Change Committee (NCCC), other projects: LMS/GEF/UNEP Early Warning Phase II Project, Regeneration of Landscapes and Livelihoods (ROLL) (IFAD/GoL); District Administrations and other District SHs in Mohale's Hoek, Mafeteng, Quthing, and Thaba Tseka; development partners: FAO, WFP, UNDP; NGOs: World Vision; cooperatives: Lesotho National Farmers Union; private sector: Standard Lesotho Bank, Lesotho Highlands Authority (LHDA); research sector: National University of Lesotho and Lerotholi Polytechnic. Please see **Annex 3** for the detailed SH list.

The consultations aimed to understand the key policy priorities and programmes of the GoL in responding to climate change, key climate risks facing smallholder farmers in Lesotho, their coping responses and adaptation needs, the available services for enhancing the resilience of smallholder farmers and gaps in these services. The findings of the consultations have been used to shape the outcomes, outputs and activities of the FP, in order to overcome identified barriers. They directly address key priorities raised by community members and national and district stakeholders, and indeed the entire project has been structured around the need for climate risk reduction, livelihoods diversification, access to markets and savings, to make the livelihoods of rural people and vulnerable groups more climate resilient. Some of the key points raised by many SHs included:

- Numerous achievements under IACoV phase I are recognised across the sectors, including leadership, and significant ownership on the part of the GoL executing entities and delivery partners;
- IACoV has enhanced WFP being seen as strong partner for GoL, and a source of good practice examples, e.g. CBPP, which is now used in the ROLL/IFAD project and LoCAL;
- SHs across sectors expressed strong support for scaling up and scaling out under phase II – particularly for resilience building and adaptation approaches;

- There is additional work to do on systems development including forecasting system under C1; LMCS system; operationalising the NCCCS at district level; enhancing linkages across project components; market access and livelihood diversification;
- Increased awareness and understanding is still required at all levels, from the NCCC down to the villagers; there are several options to incentivise uptake;
- Lack of GoL resources and inadequate staffing remains a challenge; more staff are needed for field level implementation;
- Training at all levels has been extremely valuable but insufficient to ensure sustainability;
- The food security context has worsened, exacerbated by El Niño, crime and GBV;
- More integrated planning and greater collaboration is needed across departments and ministries; IACoV has facilitated this at district level through the PITs;
- More concerted action needed on reducing PHL and promoting market access; and
- Many options for IGAs to benefit women suggested; an integrated package for herders and youth is needed.

Please see **Annex 4** for a detailed and disaggregated account of the perspectives of national and district stakeholders in the project development process for phase II.

In addition to stakeholder (SH) consultations carried out at national level, district and local community consultations were conducted during the phase II design, to ensure project activities meet localized adaptation needs and to enhance local and community ownership over the project activities. The local consultations were essential to identify and/or validate additional interventions and innovations that can support vulnerable communities and individuals to enhance their adaptive capacity and implement adaptation approaches. The disaggregated findings provided primary data for the project's Gender Assessment (GA) and Gender Action Plan (GAP). Once the GA and GAP were completed, the final activities were developed and agreed with the GoL and other key SHs.

The national stakeholder consultations included a total of 49 people, of whom 21 were women and 28 were men – please see **Annex 3**.

District-level stakeholder consultations

In order to meet AF, GoL, and WFP requirements for participatory development, a district and local community consultations process was planned from the outset of project formulation for the proposed phase II of IACoV and implemented in the four project districts over a three-week period from 17 July to 5 August 2024. At the district level, the entry point was the District Administration, consisting of the District Administrator (DA) and key GoL ministries and departments present. The DA leads and coordinates the implementation of all activities executed by all government ministries, NGOs, and development partners. Detailed meetings were held with these local government staff and extensionists, which were also attended by key NGOs and delivery partners present at the district level, after which the project development team, district staff and WFP Field Monitors conducted community consultations in several localities within each district.

A total number of 42 district-level SHs were consulted, of whom 21 were female and 18 male, and 3 youth (under 35) primarily from the DA and various government ministries and departments, including Gender; private sector and NGO representatives also participated. Please see **Annex 3** of the proposal for a list of district-level SHs consulted. **Annex 4** of the proposal contains a list of key points raised by district SHs from the different sectors – these have been integrated into the analysis set out in this report where applicable, and into the full proposal.

Community-level consultations

A total of 11 villages or localities across the four districts were included in the community consultations, as follows: Mafeteng – two; Mohale's Hoek – three; Quthing – two; and Thaba Tseka – four. Extra emphasis was placed on Thaba Tseka as this will be a new district for IACoV. A detailed tool was developed to guide the community-level consultations to meet the AF requirements, as well as a set of framing questions to guide the meetings with District staff, and a detailed report outline indicating how the findings of the community and local consultations conducted in the four districts should be consolidated into one report, with cross-district analysis and recommendations.

In each village, between three to five focus group discussions were held separately with women, men, and female and male youth, to facilitate open discussions and inclusiveness. Disaggregating the groups by gender and age allowed participants to freely express their opinions and perspectives, including the freedom to discuss sensitive issues such as gender-based violence (GBV), and facilitated disaggregated data collection. Participants were drawn from key committees and groups including village disaster management committees (VDMTs), village burial societies, village policing forums, electricity committees, initiation school committees, grazing associations, clinic committees, village development committees, and other ordinary members of the villages, including the chiefs. A small number of people living with disabilities (PwDs) also participated. The FGDs were conducted in collaboration with stakeholders from the

DA's Office, Disaster Management Authority (DMA), the Ministry of Gender, Youth and Social Development (MGYSD), the Ministry of Environment and Forestry (MoEF), the Ministry of Agriculture, Food Security and Nutrition (MAFSN), amongst others, as well as NGOs such as Lesotho Red Cross and World Vision.

Table 8~~6~~ provides a summary of the total number of community members, which was 704 people, included in the community consultations, disaggregated according to age and sex, with further tables below providing the detailed information per village, under each district. **Of the 704 community participants, 395 were female and 309 were male; a total of 227 youth were included, of whom 128 were female and 99 male youth. 163 people over the age of 60 were included, of whom 100 were female and 63 male**. The consultations also included **19 PwD (14 female and 5 male),** as per Tables A5.2 – A5.7 in the detailed report on the local consultations process, contained in **Annex 5**.

Table 8~~6~~. Summary of total number of community participants included in consultations

Age Group	**Sex**		**Total**
	Female	Male	
18 -35	128	99	227
36 - 59	167	147	314
60 +	100	63	163
Total	**395**	**309**	**704**

Mafeteng: A total of 86 people (48 females and 38 males, of whom 28 were youth [18 female and 10 male] and 3 were PwD) participated in the community consultations carried out on 03/07/2024 in two villages in Mafeteng: Motsekuoa village in 'Mamantšo Community Council (03/07/2024), and Ha Thakanyane village in Makoabating Community Council (04/07/2024), as per Tables **A5.2** and **A5.3** in **Annex 5**.

Mohale's Hoek: A total number of 111 community members participated in FGDs in Mohale's Hoek, of whom 65 were female and 46 male. 39 out of the 111, or 35% of the participants, were youth (24 female and 15 male). FGDs were held in two villages: Majapereng in the southern lowlands and Mok'hopha in the foothills. Two FGDs were held on 20/06/2024 in Lithakaling, in the southern lowlands, which is considered a centre of excellence locality from IACoV Phase I.

Quthing: A total of 164 participants, of whom 99 were female and 65 male, including 45 youth (21 female and 24 male) and 4 PwDs, took part in the FGDs held in two localities, namely Tsatsane in the Tosing Community Council, and Ha Pali in Mphaki Community Council.

Thaba Tseka: A total of 343 people participated in the community consultations in Thaba Tseka district; 183 females and 160 males, of whom 115 were youth (65 female youth and 50 male youth) and 12 were PwD. FGDs were held in Makhuleng village and Ha Maanela village in Bokong community council from 2 to 3 July 2024; in Ha Setoetoe village, Bobete Community Council, on 24/06/2024; and in Ha Majara village, Thaban'a Mahlanya Community Council, on 25/06/2024.

Community consultations revealed that a range of climatic changes have been observed across the villages in the four districts, namely increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, disruptions to normal snowfall patterns, increased summer temperatures and extremely cold winters. While drought used to occur once in every five years with minimal impact, currently the impact is severe, the period is prolonged, and it can occur in consecutive years. Community members highlighted significant challenges to their lives and livelihoods as a result of these climatic changes, namely shift in cropping seasons; reduced agricultural productivity and increased food insecurity; new and increased pests and diseases that are difficult to manage; increased water scarcity with excessive burdens for women, female youth and girls; compromised WASH and child care practices; reduced availability of firewood and increased collection burden, especially for women, female youth, and girls; reduced availability or local extinction of indigenous vegetables and medicinal plants extinction; soil erosion and poor soil absorptive capacity leading to increased desertification; rangeland degradation and livestock decline; a range of health impacts, especially on children; damage to houses and infrastructure from strong winds and dust storms; and disruption to traditional communal practices and widening economic disparities.

Most areas have a daily diet that is not particularly diverse, although this has increased substantially where IACoV interventions have been well implemented. Women, men, female and male youth raised issues concerning GBV and how climate change has affected this. Information was provided on the gendered division of labour, women and youth participation and access to resources, and issues concerning people with disabilities and elderly people. Although youth across the localities where IACoV had been implemented indicated that they had benefited, from resilience activities as

well as the AA response, in several cases youth mentioned that they were not afforded adequate participation in project activities by their elders, and/or were not that interested in communal activities.

Although all groups of villagers can describe changing weather trends, there is limited understanding of the causes of climatic changes. Villagers receive climate and weather information through various channels such as radios, SMS – this is an IACoV-supported activity, social media platforms like Facebook, and phone apps. They find the information timely but not always accurate, especially regarding rain predictions by location. Men reported to prefer visual and auditory methods due to limited literacy. There are mixed opinions regarding indigenous knowledge, with youth in general and adult women sceptical about its reliability, while it plays a vital role for some people especially elderly people.

Feedback across the groups in the three southern districts highlighted the diverse impacts of support received from IACOV. Youth emphasized trust in WFP due to consistent cash transfers over three years, aiding during food shortages, and appreciated the feedback mechanism allowing them to express gratitude or concerns. Women reported receiving non-food items like horticultural seeds and shade nets, improving household food security by reducing reliance on wild vegetables. Chickens provided a sustainable protein source, and cash transfers empowered them to purchase essential items, enhancing household dignity. Men expressed gratitude for IACoV's support in rangeland rehabilitation, including brush control and wetlands restoration. Communities noted that conservation measures such as stone lines and gully structures had supported the recovery of vegetation and land. Constraints noted included insufficient technical support for climate-smart agriculture and conservation measures; and insufficient scale of the AA response to meet the need.

Climate adaptation gaps raised by all groups of community members in the consultations related to insufficient knowledge of and support for climate resilient technologies to address low levels of agricultural production and livestock diseases; inadequate extension services, insufficient nutrition knowledge; climate information that was not always locally reliable; and older men and women mentioned the lack of propagation of indigenous knowledge related to early warning for climatic hazards.

Community recommendations made for phase II of IACoV included increased support for more rehabilitation of land through cash-based transfers; additional support on fire control; strengthening climate services and early warning systems; more support for climate smart agriculture, drought-tolerant seeds, short variety seeds, water harvesting techniques; comprehensive sexuality and GBV sensitisation and education; energy-saving technologies; upscaling production of short cycle animals; more nutrition sensitisation; targeted interventions for youth; and more attention to IGAs and market access. Please see **Annex 5** for additional detail and disaggregated findings from the community consultations, which have been integrated into the project design across components.

A gender assessment was conducted to provide an overview of gender issues in Lesotho in the legal and socio-cultural context, highlight differentiated gender impacts of climate change specific to agriculture and smallholder farmers in Lesotho, and to provide gender-specific recommendations for how the project could address these identified risks and increase the resilience and adaptive capacity of women and all groups in an equitable and effective fashion. Gender analysis needs to take place early in the planning process so that an understanding of gender-differentiated issues, roles, and power relations is built into the project. This GA has been prepared using a mix of secondary and primary data. A key source of secondary data was an Integrated Cross-Cutting Context Analysis and Risk Assessment on Gender and Protection in Lesotho (ICARA), conducted by the WFP Lesotho Country Office in October 2023. In order to inform the proposal development, an initial draft was prepared based on these secondary sources at an early stage of the proposal development process. This was then further developed through the integration of the findings of the stakeholder consultations at national, district, and community level, in parallel with the elucidation of the entire project proposal. Stakeholder representatives consulted with a specifically gender perspective are detailed in Annex 6. The findings from the stakeholder and community consultations were integrated into GA, and the recommendations from the GA were used to develop the project activities. Once the Gender Action Plan was developed, this was further integrated into the proposal, and project activities fine-tuned where necessary.

Findings encompassed such areas as the gendered division of labour in the project areas and climate change impacts on this; gender-related ownership and access to resources; differentiated access to information and opportunities necessary to participate and benefit fully from the anticipated outcomes of the project; gendered decision making; food security and daily diet; gender-based violence and impacts on education and childcare; interlinkages and knock-on effects of climatic changes.

The findings of the gender assessment indicate that there are anticipated gender differences in vulnerability and adaptive capacity among women and girls, men and boys, in the project areas for IACoV phase II. Those most vulnerable to the changes, and most affected by them, are poorer households and those with a single woman as head, people with disabilities, pregnant and breastfeeding women, and the elderly; female and male youth who may lack voice and access to land and resources; young girls who are forced into early marriage by food insecurity and poverty exacerbated by climate change, and young boys who become herders or have to take up casual labour at a young age. Girls and boys in the rural areas both suffer from reduced education levels which affects their adaptive capacity, not least in terms of limiting their options for livelihood diversification.

As climate change effects continue to deepen, existing gender inequalities in the proposed project areas will be exacerbated by climate change impacts. The findings of the community consultations show that the livelihoods of women and girls, men and boys, have already been affected differently by climate change due to culturally established gender roles like the gendered division of labour (both paid and unpaid). Thus, as expected, women and girls are spending increased time travelling to collect both water and firewood in most project villages, which reduces time available for child care, cultivation of vegetable gardens, educational advancement, and entrepreneurial activity. Girls are being removed from school at an earlier age to enter into arranged marriages, as a coping mechanism, preventing them from gaining the opportunities that education could confer. Many boys are receiving even less education, as they are sent to herd livestock from as young as six years old. This sets them on a trajectory that often leads them to become involved with criminal gangs with high risks to their lives if they join illegal mining operations in South Africa.

The consultations also show an increased prevalence of gender-based violence (GBV) linked to increased food insecurity and the hardships and frustrations that engenders, as well as reduced educational levels, that have exacerbated culturally-sanctioned behaviour. Vulnerable sub-groups experience intersectionality with respect to their climate vulnerability and adaptive capacity. For example, rural poor women suffer from intersecting layers of vulnerability – for example, vulnerability tends to be higher in the rural areas, and women are more adversely discriminated against than men in terms of access to land and by cultural norms that hold that women are not suitable to be leaders, etc.; in addition, poorer women are more vulnerable as they have less resources that could assist them to adapt to climatic changes. Reduced education levels, for example through being forced to leave school at an early age and enter into an intergenerational marriage as a coping mechanism for the household, further exacerbate the vulnerability of rural poor women, especially young women currently, and reduce their adaptive capacity as those who are uneducated may have less knowledge about inexpensive adaptation mechanisms that could reduce their vulnerability. See **Annex 6** for additional detail on the findings.

The findings of the Gender Assessment have been integrated into the design of the FP, as have the key recommendations, which are designed to show how the gender-specific vulnerabilities and impacts identified can be reduced and addressed by inter alia increasing the capabilities of different gender groups and sub-groups to adapt. The project actions have been specifically designed to do no harm by not increasing women's or girls' unpaid care burden further, and to alleviate them through capacity building and provision of skills and resources that empower them to manage their caregiving responsibilities more efficiently.

The Gender Assessment recommendations can be summarised as: (i) Develop project-specific gender guidance: Develop detailed and project-specific gender guidelines and an easy-to-use checklist for gender mainstreaming during implementation, building on relevant lessons learned from IACoV phase I as well as WFP and GoL best practice, and in accordance with the Gender Policy of the AF; (ii) Gather and disseminate gender-related lessons learned: specifically on gender equality and women's empowerment outcomes through surveys and more qualitative case studies to build evidence; (iii) Continue and enhance climate awareness raising and climate adaptation skills: for all groups and provide targeted skills training to expand the climate-resilient livelihood options for all groups, with gender issues integrated into all courses. Ensure that production promoted is climate-resilient, as per IACoV phase I, to enhance domestic food security related to increasing agriculture productivity. Continue the work under IACoV phase I to engage women and men equitably on asset creation, such as having flexible hours, having support for childcare, maintaining the independent complaint feedback mechanism, reducing walking distances to the project sites, and encouraging women to assume decision making roles; (iv) Ensure targeted, localized, and accessible last mile climate services for all groups: building on the findings of the community perceptions and indigenous knowledge study conducted under IACoV phase I, ensure that the last mile climate services to be developed are suitably localized, through enhanced accuracy of the forecast and development of agro-met advisories, and are targeted for all sub-groups; (v) Continue and strengthen the nutrition interventions: specifically though nutrition clubs, with more male engagement and inclusion of herders; (vi) Develop a package of interventions specifically targeted at youth; (vii) Develop a package of interventions specifically targeted at herders; (viii) Support ongoing women's and vulnerable gender sub-groups empowerment and leadership in project structures; (ix) Promote equitable access to resources for women and vulnerable gender sub-groups through project activities; (x) Continue and enhance sensitisation on GBV; (xi) Enhance access to IGAs targeting different groups, with facilitated market access; (xii) Enhance access to financial services and business development; (xiii) Build on and strengthen the community feedback mechanisms; and (xiv) Create/support gender and climate action groups at district and national level.

The last recommendation is of a more structural nature, and specifically intended to support the GoL as well as NGO and private sector service providers to continue providing support on the gender-climate action nexus once the project has concluded. Please see **Annex 6** for the full Gender Assessment.

ESS consultations: Guidance was provided by the WFP RBJ Environmental and Social Safeguards specialist for the team carrying out the local and community consultations in terms of questions to ask and issues to look out for. After the initial project activities had been developed, an ESS mission was mounted with WFP RBJ experts to conduct the detailed screening, which was undertaken through interviews with potential communities/village members where FGD community

consultations had been held in each district. The villages were selected based on their vulnerability to climate change and their eligibility to be supported by the project. In total, seven villages were visited for ESS screening: Mafeteng (Lekhari and Isaka); Thaba Tseka (Setoetoe-Bobete and Ha Majara); Quthing (Mohlakoana and Tsatsane/Liphapang); and Mohale's Hoek (Majapereng).[161] The interviews comprised a mix of open-ended and structured questions, using the ESS questions in the WFP tool. Community members were then requested to guide the ESS team on a transect walk through their area and communal land to showcase natural resources that they possess and manage together. Detailed ESS screening was compiled and the ESMP developed (**Annex 7**).

II.I. Full cost of adaptation reasoning

Component 1

Baseline scenario: Basotho smallholder farmers, many of whom are women, face a range of challenges and barriers in increasing their agricultural production and incomes and diversifying their livelihoods so that they are more climate resilient. Smallholder farmers, who rely mainly on rain-fed agriculture, are already affected by unpredictability in the timing of rainfall, increased length and unpredictability of dry spells and cold spells, and prolonged drought in some areas. Under IACoV phase I and with additional support from the Early Warning System (EWS) Phase II project, institutional capacity has been built in the LMS to begin to address this situation through enhanced climate services. This support has included acquisition and upgrading of High-Performance Computing (HPC) systems, namely a minicluster and an HPC cluster, which allowed the Weather Research and Forecasting (WRF) model to be installed, as well as software to generate guidance tools for weather forecasters in operational weather forecasting. Through IACoV phase I, decision support tools in the form of map rooms have been developed in LMS, focusing on early warning of the possible occurrence of excessive or deficit rainfall. However, human resources will need to be developed for the current gains to be sustainable and for further development of decision support tools. The current capacity of the HPC is limited with respect to processing speed as well as storage capacity, which needs to be upgraded urgently. Moreover, the current rainfall monitoring network of LMS is limited with insufficient data points for carrying out Medium-Range, Extended-Range and Seasonal-Range predictions. The sub-seasonal to seasonal (S2S) forecast is not yet sufficiently accurate and LMS does not have capabilities for impact-based forecasting (IBF); thus there is insufficient understanding of and response to the forecasts.

While an anticipatory action (AA) system for drought has been developed in four districts, and the first response successfully triggered in 2023, there are no SOPs for the AA system in the remaining six districts and limited capabilities at this stage to develop these without additional support. Actions under phase I resulted in an improvement to the forecast and the development of a SMS system for climate services. However, many communities currently still have limited or no access to climate information, as the modes of dissemination are too limited, which makes it increasingly difficult for them to plan ahead of the season as they continue to rely on traditional knowledge and practices that do not reflect the current climate patterns. In general, many do not trust or understand scientific-based evidence on climate trends and climate change, including seasonal and weather forecasts. There are limited capabilities for developing targeted agro-meteorological advisories and no corps of disseminators to make up a robust system of last mile climate services (LMCS). Thus communities do not yet receive targeted, localised and actionable LMCS upon which to base their agricultural and other livelihoods-related decisions.

Additionality: Under Component 1, institutional capacity and systems will be strengthened to further enhance the accuracy of S2S forecasting for drought that was developed under phase I and to extend this enhanced forecasting to other hazards. The impact-based forecasting capabilities of the LMS and other stakeholders for temperature and rainfall will be enhanced to improve climate services. Through the activities under Component 1, the project will develop capacities and mechanisms to promote the further scaling up of the AA activities beyond the districts of phase I of the project, to cover all 10 districts of the country, thus reducing the risks of extreme events like drought for additional populations. Moreover, the IBF system will be a key input into the ongoing development of a national multi-hazard anticipatory action system, as well as into the development of last mile climate services (LMCS) that will be disseminated through a diverse cadre of LMCS disseminators – including youth, comedians, influencers, theatre groups, and school choirs – who will have a second purpose of adding more ground/village level coverage for awareness raising and communications. Gender-responsive LMCS in project districts will be co-developed with stakeholders and implemented, resulting in different groups of smallholder farmers being supported to take more climate risk informed decisions through enhanced access to more targeted climate services, as well as the participation in coherent adaptation planning processes under component 2. The sustainability of the national AA system will be promoted through a study to understand and prioritise national government and private sector funding opportunities in this regard. The LMS systems will be assisted towards sustainability through support to a revenue generation strategy and piloted activities, as well as by further developing the approach to integrated climate risk financing.

[161] Thaba Tseka: HaMajara Community: 1 woman, 3 men on 13 August 2024, and in Setoetoe-Bobete: 3 women, 8 men on 14 August 2024; Mafeteng: Isaka, 6 women, 8 men, and in Lekhari, 12 women, 1 man; Majapereng, 15 women, 6 men; Mohlakoana 17 women, 4 men; Tsatsane/Liphapang 14 women, 5 men.

Component 2

Baseline scenario: Under Component 2 of IACoV phase I, the National Climate Change Communication Strategy (NCCCS) was developed in order to allow for a structured and coherent basis for awareness raising on climate change. District Action Plans for implementing the NCCCS were developed for the three southern districts; these, however, have not been fully operationalised due to COVID-19 related delays experienced, as well as lack of clarity between the respective functions of the LMS and the DMA. While capabilities of the LMS and the NCCC have been enhanced with respect to the NCCCS, these are not yet at adequate levels to fully drive climate change awareness raising across sectors and socio-economic groups, and to enable the functional integration between this awareness raising and concrete adaptation actions.

The results of the MTR and studies conducted under IACoV I, as well as the stakeholder and community consultations processes to design phase II, have highlighted the need for increased awareness and understanding of climate change, its impacts, and adaption options, at all levels. In the targeted districts, while all villagers were able to identify observed climatic changes, many do not understand the drivers and have little awareness of projected changes into the future or ways to adapt to them. Phase I activities in the three southern districts have helped with this situation to some extent but have not been able to be implemented in an ongoing fashion that is concomitant with the increasing climate risks, such as more frequent and severe drought, increased average temperature and dryness. While there are centres of excellence amongst the phase I project sites in which understanding has increased and resilience has been developed, many smallholder farmers still resort to negative coping strategies and have insufficient access to the climate-resilient agricultural approaches, technologies and finance that could enhance the resilience of their agriculture-based livelihoods.

Despite sensitisation conducted under phase I, there are deep-seated social and cultural norms that drive and normalize GBV, which has been exacerbated by the increased food insecurity and poverty resulting from climatic changes. No such sensitisation, centring on the CC-FS-GEN-NUT nexus, has been conducted in Thaba Tseka district, where the population suffers from high levels of GBV, precarious food security, high levels of early marriage, and poor nutritional indicators.

Additionality: With the AF funding for phase II, capacities of the LMS and NCCC will be enhanced through specific training, annual refreshers and a series of seminars so that they are able to drive ongoing operationalisation of the NCCS during and beyond the lifespan of phase II. The NCCS will be revised to integrate the CC-FS-GEN-NUT nexus, there will be ongoing sensitisation of the respective roles and functions of all stakeholders in implementing the NCCCS, and district action plans will be scaled up in the remaining seven districts. This is expected to considerably strengthen knowledge and understanding of climate change across GoL departments and for the range of secondary and tertiary stakeholders who are identified in the NCCCS. The Integration of climate change into the national school curricula will be strengthened through inclusion of the CC-FS-GEN-NUT nexus and by extending the teacher training activities across the remaining seven districts and into the non-formal education curricula targeting those who are not able to access formal education, such as herders. The project will continue to capacitate the media on climate change and nutrition reporting, towards further development of the sustainability strategy.

Climate champions (lead farmers, herders, women farmer groups, school groups, and youth entrepreneurs), the majority of whom will be women, with a focus as well on youth, will be empowered to carry out awareness raising activities themselves and to enable peer-to-peer learning on contextualised climate change challenges and solutions for the different socio-economic groups. They will also serve as advocates for further uptake and scaling out of last mile climate services (Component 1) , as well as the integrated resilience building approach through which the project will be implemented. Under the district gender working groups for climate action that the project will facilitate, inter-sectoral collaboration and participatory approaches to gender- and nutrition-responsive climate action will be promoted, leading to structural change and ongoing gender/climate action beyond the project. These district-level groups will include NGOs and private sector organisations to broaden understanding and avenues for support.

All of these activities will contribute to greatly enhanced awareness of current and future climate impacts and knowledge on potential gender-responsive adaptation solutions. Basotho across the country will have an enhanced understanding of the linkages between climate change, food security, gender and GBV, and nutrition; in the targeted project areas, this will be deepened through more intensive SBCC on the CC-FS-GEN-NUT nexus that will accompany all CBPP processes, project trainings, market days, etc. Empowered by this knowledge, it is anticipated that the project will play a role in reducing the very high levels of GBV. Stakeholders across the groupings will be able to make climate-informed changes to their livelihoods, further strengthened through the Component 3 activities in the four districts, that will deliver social, economic and environmental benefits as set out in Part II.D and contribute to the revitalisation and increasing climate resilience of Lesotho's rural areas and agricultural economy.

Component 3

Baseline scenario: In the context of increasingly frequent climate shocks such as droughts, longer dry spells, heavy rainfall events, and unseasonal snow, smallholder farmers' risks for total crop failure and for loss of livestock are increasing, resulting in them having to sell productive assets to cope. Such negative coping strategies are leading to loss

of land in some cases and to some families abandoning farming altogether. The increasingly difficult situation in the rural areas, in which the productivity of smallholder agriculture is declining due to climatic changes and the lack of adaptation support, is also fuelling migration into the urban areas, especially of men and youth, but women too go to look for work in South Africa. This is leading to labour shortages, reduced social cohesion of the rural areas, and lower human capacity to re-energise rural economies. Where phase I of IACoV has been implemented, there is a rural resurgence in terms of reduced land degradation and erosion, enhanced and diversified production, increased income, food security and nutrition. There is also an increase in hope for the future: as a group member at the Lithakaling project site noted, "We are dedicated to come to the centre every day, as we see something that will sustain our livelihoods into the future." However, currently, this is limited to 21 project sites in the three southern districts and needs to be scaled up to benefit more vulnerable people. The situation in Thaba Tseka district is particularly bad, with extensive wetlands' degradation and overgrazing of rangelands, very limited extension support to date in more remote areas, almost no implementation of adaptation activities or climate-smart agriculture, and many challenges in accessing the market.

Despite the achievements of IACoV, there has been insufficient attention to IGAs and to facilitating market linkages, due to unavoidable delays related to the COVID-19 pandemic. Work to reduce PHL has been limited as the study on this was delayed; thus, recommendations remain largely unimplemented. Access to nutrition clubs, savings groups and affordable credit for agriculture-related activities continues to be a challenge for the rural community, and for women in particular; thus people who remain in rural areas are not able to access credit to fund their own adaptation activities. Even where people have been supported by other climate change projects or programmes, they often fall back on negative coping strategies as soon as the project ends. Furthermore, there are few incentives to energise and encourage herders, rural youth and women to excel as resilient rural entrepreneurs and to continue investing in their areas. They have also not been supported to serve as champions and change agents for climate response options.

Under the baseline scenario, it is likely that the increasing trend of migration out of rural areas and of high levels of youth unemployment will continue, with negative effects on household and national food security, as well as on social and cultural wellbeing. There is a cascade of economic impacts resulting from climate change effects on agro-ecosystems, including agricultural loss and damage, greater need for social assistance, additional burden on the health system and productive capital losses, greater emergency relief and response needs, and increased land degradation/rehabilitation costs. Thus, without appropriate adaptation, climate change impacts are likely to result in a net negative impact on agricultural production at the national level, in addition to the severe impacts on different vulnerable groups in the four project districts. In the absence of the dedicated activities to institutionalise IACoV phase I's innovative approach to climate risk management through the social protection system, the impact of the project will be limited to the targeted localities and beneficiary groups.

Additionality: Under phase II, the project will scale out the areas of land and wetlands rehabilitated, with resultant larger ecological benefits. The project will reach a larger group of people across the three southern districts, as well as the populations in three community councils in Thaba Tseka, and assist them to improve their livelihoods and food security through enhanced access to climate-resilient agricultural approaches and technologies targeted to their livelihoods, such as GAPs, climate-smart agricultural technologies such as increased mulching and keyhole gardening, use of organic manure and compost, etc. These larger groups of people will be sensitised on how climate change, food security, gender and nutrition interact with each other and assisted to enhance their nutrition and dietary diversity.

By helping farmers to access micro credit and savings, as well as business development support, the project will promote ongoing and sustainable livelihood diversification, as an adaptation strategy, thus helping farmers to build up their risk reserves. Increasing savings and access to micro finance means that poor smallholder farmers will be empowered to invest in their own chosen actions for post-harvest storage and processing in the future, and thus be able to move up the value chain. The project will provide direct support to beneficiaries under output 3.1.3 to promote entrepreneurial opportunities and establish market linkages for climate-resilient value chains. This support will strengthen the capacity of community entrepreneurs to start and grow their business enterprises and implement their chosen priority adaptation options, as identified through the CBPP process, under full cost of adaptation reasoning. As the enterprises grow and generate returns, some community entrepreneurs might then wish to access micro loans from micro-credit institutions to further expand their businesses. These activities will complement those that are supported by the project, such as the trainings, inputs, and enhanced market access provided to beneficiaries. The project is thus facilitating enhanced access to financial services like savings and small loans from the rural micro-credit facilities and enabling the autonomy of small entrepreneurs, who will be capacitated by the project to be able to think through and diversify their own livelihoods, beyond the narrower envelope of the project, with its limited timeframes. Support for value chain development and marketing of high-value commodities where feasible, will play an important role in increasing farmers' incomes so that they can enhance the returns from their livelihoods. Assisted by the project, vulnerable farming households will continue to develop their income generating activities and livelihoods diversification, thus building their adaptive capacity and enabling ongoing adaptation actions on their part.

The project does not expect co-financing and has been designed to deliver its outcomes and outputs regardless of the success of other project(s). In the interests of good development and climate adaptation practice, the project will optimise

synergies with relevant existing and pipeline interventions in Lesotho, as set out in section II.F. This is important to prevent inefficient demands on government staff and other project stakeholders, but it does not prevent the proposed AF project from being a fully stand-alone project.

II.J. Sustainability

The integrated climate risk management and resilience building approach adopted by the project, which includes risk layering, is fundamentally designed to promote sustainability – and has been demonstrated to promote that, through numerous similar WFP-supported programmes across the world and specifically in the SADC region. This approach is based on layering and sequencing of interventions that are context based and community driven. During implementation of phase I, progress has been achieved in meeting results under all three components and there is evidence of improved resilience on the ground; however, as noted in the MTR, more attention was needed to the project's exit strategy and sustainability provisions, to deepen and sustain results.

Under IACoV phase II, learning from the lessons of phase I, the project will adopt a strengthened approach to sustainability that will provide for an in-built exit strategy, through the following key elements:

Continued and intensified strengthening of GoL systems, including through enhanced technical support for integrated planning and implementation across project components, as well as enhanced technical capabilities of extension services across sectors of relevance for the CC-FS-GEN-NUT nexus. The project will adopt a holistic approach for supporting national systems contributing to the achievement of zero hunger, in the context of worsening climate change. Enhanced systems development under phase II includes strengthening the S2S forecasting system under Component 1 and developing impact-based forecasting so that this enables more accurate forecasting of hazards and actionable early warning, as well as enabling the localised LMCS system; updating the National Climate Change Communications Strategy to integrate the CC-FS-GEN-NUT nexus as well as the findings of phase I studies and operationalising it at district level across the country under Component 2; and enhancing linkages across project components through better sequencing and integration of the CC-FS-GEN-NUT central organising concept. The project will further not only scale up the AA system for drought so that it is nationwide but will also support the development of a gender-responsive national multi-hazard AA system, which will include a study to prioritise national government and private sector funding opportunities, so that the national multi-hazard AA system will be self-sustaining into the future. The GoL is now participating in the African Risk Capacity (ARC) programme, which is an important element of own funding for early response. The project will support LMS to develop its nascent strategy on revenue generation for sustainability, as well as assist the GoL to develop a joined-up approach to climate change financing, in the interests of systems development and sustainability. There will be enhanced and ongoing capacity development for GoL staff at different levels, as discussed below, as an essential element of systems building.

Programmatic approach to training and continuous awareness raising: The project will significantly enhance its capacity development activities and will deepen and extend its awareness raising activities, so that growing understanding of the impacts of climate change will be accompanied by practical skills development that results in increased adaptive capacity and resilience. Continuous awareness raising of the project beneficiaries is important to make sure that the communities understand the need for the climate change adaptation strategies promoted by the project; this was identified by the MTR as an important step in the sustainability strategy. To this end, the project will (i) update the NCCCS, integrating key inputs and lessons learned, including CC/FS/GEN/NUT, and develop and implement an iterative awareness raising programme for NCCCS secondary stakeholders (output 2.1.1); (ii) incentivise innovative approaches to awareness raising on the CC/FS/GEN/NUT through competitions, debates, etc. (output 2.1.1); roll out a roadshow on CC/FS/GEN/NUT nexus across the country (output 2.2.1); operationalise district action plans under the updated NCCCS (output 2.1.1).

The project will adopt a programmatic approach to training, with annual / regular refreshers and clear desired outcomes of training. Elements of this approach include: (i) developing a comprehensive training strategy to cover the ongoing capacity development needs of all three components and M&E, as one of the earliest project actions (output 2.3.1); (ii) ongoing training for LMS on operations and maintenance of the HPC, map rooms, NWP and climate modelling, enhanced S2S forecasting, IBF, agro-met advisories and LMCS (outputs 1.1.1, 1.1.2, 1.3.1); (iii) ongoing training for LMS and NCCC on operationalisation of the NCCS with annual refreshers and series of seminars (output 2.1.1); (iv) enhanced and strategic training for LMS Observers in the districts (output 1.3.1); (v) district-level annual refreshers on IACoV issues and approach, including CC-FS-GEN-NUT nexus (output 2.1.1); (vi) ongoing and systematic capacity development of district extension staff as ToTT across departments on CBPP, climate-resilient technologies and approaches, GBV and protection, CC-FS-GEN-NUT, etc. (output 3.1.2); (vii) training for climate change champions from different socio-economic backgrounds e.g. lead farmers, youth, CC/environment clubs at schools, lead herders (output 2.1.1); (viii) ongoing capacity strengthening for media on CC/FS/GEN/NUT (output 2.1.1); (ix) scaled out and enhanced training of teachers and non-formal institutions on climate change impacts, with training of scholars on climate-smart agricultural approaches such as homestead gardening using the keyhole approach, etc. (output 2.2.1); amongst others.

The comprehensive training strategy to cover the ongoing capacity development needs of all three components and associated M&E processes will ensure that potential synergies are harnessed and duplication / inefficiencies avoided in training activities. It is crucial that this is an early project action, as it will determine the logical sequencing and operationalisation of project capacity development actions. Moreover, the project will help the GoL to internalise this programmatic approach to training for enhanced climate resilience – so that ultimately the GoL will drive this approach and require other donor-supported initiatives to align with it, to avoid *ad hoc* capacity development interventions.

Systems strengthening along the entire food system: As part of its sustainability strategy, Phase II will place additional emphasis on ensuring that IGAs are linked to tangible market access through: (i) ongoing training for different community groups engaged in IGA on market-oriented production; (ii) developing a system of market days at project sites to build capabilities of different groups to be able to harness the opportunities at district market days; (iii) working with the NUL Innovation Hub and their outlets in Maseru to provide streamlined market access for rural producers; (iv) sensitising producers on the MoA's e-marketing app and providing support for gender-responsive digitalised dissemination of market information linked to climate services; and (v) improving access roads through communal asset building in new sites in Thaba Tseka, to facilitate access to the town markets. These activities will promote greater sustainability for individual and group-based enterprises.

Enhanced policy advocacy through increased evidence generation: Phase II has developed a more robust approach to evidence generation, lessons learning, and ongoing dissemination of the project's action learning approach. The proposal sets out a range of different mechanisms for this in the discussion of 'Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy', in part II.A. The project will develop and implement an intentional learning, knowledge management and communication strategy, to include the various elements identified under output 2.3.1. One of the most important mechanisms, from a sustainability perspective, is the use of evidence generated for policy advocacy to ensure robust uptake and institutionalisation of the project's good practices. Thus the project will develop a feedback loop for learning from activities on the ground (as detailed in the discussion under output 2.3.1), design and commission a strategic approach to action research, so that this specifically targets important project elements, such as practical and efficient ways to enhance market access and IGAs for different sub-groups, and the impacts of the project's integrated CC/FS/GEN/NUT approach, and will develop and disseminate case studies, policy briefs, and communications materials, including on CC/FS/GEN/NUT. The project will then conduct targeted policy advocacy on key lessons including CC/FS/GEN/NUT integration, so that these can be institutionalised within GoL systems. A specific area to be targeted for policy advocacy is the need for a climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system. The project will target and support the MEF, Ministry of Social Development, and related stakeholders in this regard, and assist them to develop an impact-oriented M&E system to enable climate adaptive social protection through gender-responsive ecological restoration of wetlands and rangelands.

Strengthened gender mainstreaming for sustained climate resilience: A further central component of the project's exit strategy is the multi-pronged gender mainstreaming approach to advance gender equality for sustained results and climate resilience. The project targets at least 60 percent women beneficiaries (female youth are also counted under this target), and thus effectively the entire project is oriented towards optimising women's participation and benefits. Youth (female and male) are also specifically targeted at 40 percent of beneficiaries. Lack of social and economic empowerment of women, female youth, and male youth is still a constraint to development in Lesotho and constitutes one of the adaptation barriers identified. Thus the project's gender strategy will ensure equitable participation in benefits and in decision making of women, female youth and male youth; the project will target specific activities to benefit women and female youth equitably, as well as male youth and herders, which will contribute to sustainability by building their adaptive capacity. Key steps will include: (i) designing activities and initiatives to be gender-inclusive, including not increasing the workload of already over-burdened and time-deprived rural women; (ii) since one of the major gender issues impacting women and female youth is the prevalence of GBV, the project in collaboration with the CGPU and Ministry of Gender at the district level will include awareness and sensitization program on GBV and its impacts, discussed within the CC-FS-GEN-NUT nexus; (iii) the project includes dedicated support from the WFP CO Gender specialist on a cost-sharing basis, support from the Gender and Protection Unit at WFP RBJ, and obtaining the regular services of a gender-specialist with adequate gender knowledge in the local context to ensure gender equality and responsiveness throughout; budget for this is included under the relevant components; (iv) the project's progress, impacts, and benefits will be monitored and assessed using gender-disaggregated data and gender specific indicators; (v) gender transformation will be measured during/after the project, using WFP and GoL indicators to track women's empowerment, so that changes associated with the root causes of gender inequality in agriculture can be tracked. The project plans to support women, female youth, male youth, and herders as entrepreneurs through the IGA activities, which will result in livelihood diversification as well as increase the supply of adaptation solutions, such as compost, organic fertilisers, climate-resilient fodder production, value chains based on invasive species and potentially organic value chains, and apiculture.

The above elements will be refined after the terminal evaluation of phase I, to incorporate further lessons learned. The table in **Annex 12** provides a summary of the sustainability provisions for all concrete outputs, livelihood diversification

activities, savings schemes, partnerships to be established, policies and governance arrangements to be developed and implemented, knowledge to be generated, management and other capacity to be improved, etc. from economic, social, environmental, institutional, and financial perspectives.

II.K. Environmental and social impacts and risks

The entire project was screened for environmental and social risks against the 15 principles outlined in the AF's Environmental and Social Policy (ESP), as set out in the table below. In addition to the AF's ESP, the Environmental and Social Safeguards tools and instruments applied and developed for this project complement and are aligned with WFP's Environmental and Social Sustainability Framework (ESSF) to promote no harm to the environment and the people. The project is not expected to generate any significant environmental or social impacts or risks. Component 1 of the project entails enhancing the accuracy of the S2S forecasting, developing the IBF system, scaling out the AA system, and facilitating linkages to enhanced last mile climate services. Component 2 entails further developing and scaling out the NCCCS and associated awareness raising activities, scaling out climate change toolkits in formal and non-formal institutions, and empowering climate champions amongst women, youth, herders, etc.. Component 3 entails scaling out local adaptation planning through the CBPP, regenerating and rehabilitating wetlands and rangelands, enhancing access to climate resilient agricultural technologies such as conservation agriculture, keyhole gardens, and climate-resilient varieties of crops, vegetables and short-cycle livestock, supported by GAPs and enhanced extension support for environmentally sensitive and climate smart approaches, sensitising stakeholders on GBV and climate risk management through the CC-FS-GEN-NUT nexus, and promoting climate-resilient value chains and marketing linkages. These are intrinsically risk-averse with respect to social and environmental impacts. The project contains unidentified sub-projects (USPs) under Component 3, because community members are yet to choose the adaptation solutions they will implement from the adaptation menu of options, through the CBPP local adaptation planning process.

The risk level of this project is identified as **Category B**, primarily because Component 3 of the project includes partial USPs that are not yet fully defined.[162] The basis for the inclusion of USPs in the project relates to (i) localities that are not yet fully specified; (ii) beneficiaries for whom the targeting criteria has not yet been fully defined; and (iii) participatory choices of specific activities to be undertaken during project implementation, facilitated through the community-based participatory planning (CBPP) process. Prior to implementation of the relevant activities, the environmental and social risk screening of the USPs will be conducted to ensure the overall project risk category B is not exceeded and applicable ESS instruments to mitigate/minimise/control the risks are in place. Nevertheless, all potential activities under Component 3 are small in scale (managed at household level or community level) and activities such as restoration of wetlands and rangelands, keyhole gardening and conservation agriculture are likely to enhance environmental and social conditions; their potential negative impacts are very limited and can be readily mitigated. The outcomes of the identification and ES screening of USPs will be communicated to the AF through the annual Project Performance Report, by filling out section 5. "Project/Programmes with Unidentified Sub-Projects (USPs)" of the ESP Compliance chapter. Please see **Annex 7** for a fuller explanation of the USPs and the process for E&S screening.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		**Low to no risk**. WFP, executing entities and CPs will implement project activities in line with applicable legal frameworks, policies and international conventions. WFP, as an autonomous joint subsidiary programme of the United Nations and the Food and Agriculture Organization of the UN, operates under a particular legal framework, enjoying privileges and immunities under Article 105 of the Charter of the United Nations as well as the Convention on the Privileges and Immunities of the United Nations and the Convention on the Privileges and Immunities of Specialized Agencies. Under these instruments, WFP is granted immunity from every form of legal process of its member states in order to ensure that WFP can carry out its mandate globally with independence and in accordance with the humanitarian principles, including operational independence, impartiality, and neutrality. WFP also enjoys, among others, privileges and immunities in respect of taxation, financial transactions, and import and export controls. However, WFP's privileges and immunities do not generally extend to WFP's non-UN implementing partners and vendors. Accordingly, such entities are required to comply with all laws, ordinances, rules, and regulations bearing upon the performance of obligations under agreements with WFP. In Lesotho, WFP is only exempted from complying with the Value Added Tax Act, 2001 Act 9 of 2001; Income Tax Order, 1993 Ordinance 9 of 1993 etc. However, the EEs and cooperating partners (CPs) are required by WFP partner identification and due diligence procedures to comply with applicable regulations. As such the project will comply ~~As WFP may be exempt from complying with some legal frameworks of Lesotho National government, this entitlement will not be transferrable or cascaded to the executing entities or cooperating partners, as such, they will be required to demonstrate compliance~~ with all national laws. This compliance will be in the form of permits/written correspondences for activities such as: (i) Construction permits and approval of building plans; (ii) Registration of boreholes and water use licenses; (iii) When undertaking rehabilitation activities within wetlands, springs and river rehabilitation or within the respective buffer zones.

[162] The basis for categorization of the USPs as partial is the AF USP Guidance Document for IEs on USPs, as well as a discussion held with the AF Secretariat on 23/01/2025.

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Access and Equity		**Low risk**. The project will promote access and equity in project interventions as much as possible, including through Community Feedback Mechanism (CFM) awareness sessions prior to implementation of activities. Participatory assessment and targeting will be carried out to ensure full and equitable participation of and equal benefits to men and women and vulnerable and marginalized groups. The AA and climate knowledge producing project benefits are geared towards all citizens of the country, this would require incorporating the needs of people living with disabilities, women and children. The selection criteria for activities where benefits are directed to specific individuals will be undertaken through the support of WFP's Gender, Protection and Inclusion Officer, M&E officer as well as WFP's VAM unit whereby selection methodologies will be explained and reviewed so that exclusion errors are mitigated. In activities that require access restrictions such as landscape rehabilitation these activities will be conducted in accordance with land management regulations. The Phase II project interventions will not include access of new land parcels or amendment of the land parcel's prior zoned land use. Where temporary land use restrictions are anticipated such as when undertaking land rehabilitation activities, these will apply community-based approaches and support communities to establish fair and equitable community natural resource management procedures.
Marginalized and Vulnerable Groups		**Low risk**. Project activities will incorporate the needs of marginalised groups such as people with disabilities, youth and rural women, supported by the WFP Gender, Protection and Inclusion officer and guided by the Ministry of Gender and Youth's policies and guidelines. The project will apply gender responsive and consultative approaches as well as the CFM process. Contractors and service providers will use the grievance boxes for the duration of their presence in the communities.
Human Rights		**Low risk**. The project will promote human rights-based approaches in all its processes and consultations. Comprehensive awareness raising sessions on the CFM and its processes will ensure that communities' and individuals are aware of how to report incidents, and encouraged to do so, should any situation arise in which they feel project implementation may have infringed upon their human rights whether intentional or unintentionally. Lesotho ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa on 7 March 1984. The WFP AAP, Gender and Protection policies and frameworks as well as established implementation approaches will be applied and promoted in the project to support human rights and gender equality in all project activities. These processes by WFP align with the provisions of the Protocol. The Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms is not applicable to Lesotho as this is a European Union Protocol. The Convention against Discrimination in Education is applicable to Lesotho as a former Territory of the United Kingdom of Great Britain and Northen Ireland. Relevance may be associated with the school-based, teacher and learner trainings in Component 2 of the project. Lesotho is a member of the Southern African Development Community which all member states have ratified or ascended to the Protocol on Education and Training, which ascribes to equitable, free and fair education.[163] Lesotho is member to the International Labour Originations and has ascended to other relevant ILO protocols and conventions such as those that address child labour, health and safety etc.; however, the country has not ratified the Employment Policy Convention. The country's constitution as well as the existence of the Labour Act addresses the Philadelphia Declaration and the Employment Policy Convention provisions such as the right to employment.
Gender Equality and Women's Empowerment		**Low risk**. Unequal participation of women and men in the project could lead to an exacerbation of existing gender inequalities in the community. However, the project will target 60% female and 40% youth beneficiaries, ensuring that these groups benefits equitably from project activities. Although gender inequality issues are widespread in the country, project activities are not expected to aggravate this in any way, and indeed phase I of the project demonstrated reduced gender inequality and increased agency on the part of women. Consultations carried out with the participation of WFP and GoL gender experts have ensured that project activities effectively respond to the unique needs of women and girls, men and boys, and promote equal opportunities to participate, and receive comparable social and economic benefits. The project has developed a Gender Action Plan (GAP), based on a detailed Gender Assessment (Annex 6). The project activities directly respond to all 14 recommendations of the GA, The GAP indicators will be monitored and reported on, and corrective action taken without delay. All gender-related incidents reported via the CFM will be resolved promptly.
Core Labour Rights	X	**Low risk**. The project will apply applicable labour standards in the project, which will be cascaded to the project contractors and service providers who work on project funded activities. It will not use the labour of children under 15 years, which is the minimum age of employment according to Lesotho's Children Protection and Welfare Act 2011[164]. Children will not participate in the CBT activities and are excluded from labour-related activities but will benefit from awareness raising and educational activities under Outcome 2.2. All service providers appointed by WFP are required to comply with the Code of Conduct that incorporates prevention of sexual abuse and harassment. The CBT activities will provide personal protective equipment to participants of labour-intensive works programme. The selection of CBT beneficiaries follows a participatory process endorsed through community engagement. As this programme is not an employment process, it does not include migration of labour workforce and a labour management plan will not be required.
Indigenous Peoples	X	**No risk**. There are no Indigenous Peoples groups in Lesotho, whether self-identified or internationally recognised.
Involuntary Resettlement	X	**No risk**. The project will not lead to any involuntary resettlement. Communal activities will be executed under the supervision of district and local government officers who have the responsibility of upholding land use rights.
Protection of Natural Habitats		**Low to moderate risk**. Most project activities are not expected to lead to negative impacts on natural habitats, but rather are expected to improve natural habitats through restoration of degraded land, wetlands and rangelands, as well as removal of alien invasive species. However, the natural rewilding or repopulation and presence of wildlife (small animals) that has been observed on rehabilitated landscapes of phase I intervention sites may lead to unlicensed and unregulated access and use of natural resources taking place, in the form of hunting of wildlife and

[163] https://www.sadc.int/sites/default/files/2021-08/Protocol_on_Education__Training1997.pdf

[164] https://lesotholii.org/akn/ls/act/2011/7/eng@2011-03-31#part_XXIV__sec_230

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		gathering of medicinal plants. However, the project will engage with traditional leaders and the district authorities to develop community based sustainable resource management processes and management plans to mitigate any unintended negative impacts from land restoration. The four project districts have not been identified as migration corridors for any endangered species. All site-based interventions identified in the Community Action Plans developed during the CBPP processes will be subject to E&S screening that will consider all 15 principles of the AF, including the protection of natural habitats. The MEF will ensure application of and compliance with the Environment Act of Lesotho.
Conservation of Biological Diversity		**Low risk**. Project interventions will not interfere with the community-protected areas in any form. For Component 3 adaptation activities will be undertaken only on lands that were previously used for a similar activity, for example, agriculture will continue to occur on agricultural land. In addition, the project interventions will ensure that buffer zones for springs, wetlands, bogs/mires rivers, and gullies will be observed during project activities to restore ecosystem functions that will lead to enhanced biodiversity. The project will be implemented in consideration of conservation of biological diversity and where the use of biological diversity is included, applicable and sustainable off-takes will be regulated by the Department of Environment. Thus the project will not promote the uncontrolled use of biological resources that could lead to their depletion. Gully reclamation, land rehabilitation and wetland protection as implemented in the Lesotho IACoV context are not considered to have inherent risks to biodiversity, as these activities are implemented to enhance the functioning of Lesotho's degraded ecosystems and the associated biodiversity. The process of gully reclamation and land rehabilitation is implemented in the following way to minimize disturbance to native species: (i) Utilization of plant species that are native or well-adapted to the local environment to stabilize soil and reduce the impact of erosion on surrounding habitats; (ii) Actively removing or controlling invasive species that threaten the local flora and fauna to allow native species to thrive; and (iii) Promoting practices such as crop rotation, agroforestry, and minimal tillage to reduce the impact on soil health and provide habitat for local wildlife. For wetland rehabilitation, this is achieved through protection of wetlands, which allows the natural ecosystem and indigenous species to regenerate. By preventing encroachment and re-establishing natural water flow, native plant and animal species can recover and thrive, ensuring the long-term sustainability of these vital ecosystems. Land rehabilitation interventions will carefully delineate springs, wetlands, bogs/mires and other sensitive areas, and protect these sensitive areas from disturbances, implement appropriate vegetation restoration using native plant species, and control soil erosion through sustainable land management techniques. Additionally, regular monitoring and adaptive management will be carried out to ensure that these ecosystems are recovering, and that biodiversity is being effectively supported throughout the rehabilitation process. Indigenous plants will be relocated from intervention sites where they could be negatively impacted. Regarding livestock farming, only locally appropriate indigenous species will be promoted and sensitisation will be conducted prior to any project activities on the dangers of overstocking, to avoid habitat loss due to increased livestock density which could affect wild animal populations. In the new district of Thaba Tseka, there will be a particular emphasis on revitalising and implementing grazing and rangeland management systems, in collaboration with the traditional authorities and local government officials. Sensitisation of herders and livestock owners will be conducted using SBCC methods to make them aware of the importance of avoiding overstocking and overgrazing. In the three southern districts under IACoV phase I, significant strides have already been made in terms of grazing management, including formation of range management associations, the implementation of rotational grazing systems, the creation of fire belts and the establishment of grazing zones to prevent overuse of specific areas. These efforts have contributed to improved rangeland health and biodiversity conservation. These successful practices can be replicated in Thaba Tseka, building on the knowledge gained and ensuring that herders and livestock owners are fully engaged and committed to sustainable grazing practices across all districts. The livestock activities could lead to an increased use of ground or surface water. However, as stated in **Annex 7**, the intention is to restore ecosystem functions and catchment management services before implementing activities that rely on the water. The respective assessments will be undertaken by the DRWS prior to implementation for consideration by the PMU and applicable supporting technical expert, under the overall regulation of the MEF. Water abstraction rates determined by the MEF will be adhered to, to ensure that there is adequate streamflow for ecological purposes and to not negatively affect downstream users. Regarding fish farming, as stated in the screening tool in Annex 7, only small fishponds (with maximum dimensions of 10mX10m, with a depth of 3m) would be considered as potential adaptation option during the CBPP process. While such small-scale fishponds are expected to have only limited environmental and social impacts, cumulative impacts will also be considered. Potential risks, depending on the exact location, are related to the quantity of water that will be diverted from rivers to service the fishponds and possible impacts of the discharged water on water quality. During the screening of USPs, cumulative and indirect impacts will be assessed and appropriate mitigation measures designed in consultation with the experts from the DoE and the Department of Fisheries. Possible mitigation measures that can be included are implementation of erosion control practices around fishponds to prevent soil runoff into nearby watercourses, which can degrade water quality. Local communities will be sensitized on and engaged in sustainable fish farming practices, including responsible water management and monitoring of water quality to reduce potential environmental risks. Sand dams are environmentally positive interventions that are particularly suited to the Lesotho conditions. They are a powerful near-term intercession for restoring hydraulic conditions in Lesotho's degraded watersheds, thereby restoring associated freshwater biodiversity. Sand dams are located in ephemeral stream beds at an optimal location where the stone masonry wall will retain the most sand, for the least height of wall. In Lesotho they can be built on solid base rock which is found along the bottom of most water courses and provides a solid foundation. Sand dams located at optimal points retain a huge volume of sand, which acts as a wick over a significant area for ground water recharge and retention, with the sand holding 30% of volume as water. The project will result in the removal of alien invasive plant species during rangeland regeneration and associated value chain work. In addition, management for alien invasive plant species will be incorporated into project activities. Indigenous plants will be relocated from intervention sites where they could be negatively impacted. Regulations on Biosafety will be finalised during the project term and the project activities will be fine-tuned to comply with this.
Climate Change		**Low to moderate risk**. The project will implement adaptation measures to directly address climate change risks and impacts in Lesotho. All project components and activities contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short- and medium-term. Any infrastructure development will be designed to be resilient to the climate change scenarios of the different districts. The AA system will be further

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		developed to enhance preparations for drought and early warning – early action systems that respond to the respective projected forecasts. Intense rainfall and extended drought periods could potentially impact communal assets and make them vulnerable to risks of flooding and further soil erosion; however, after selection of activities and identification of specific localities, screening of the USPs will be conducted and these assets will be designed and constructed to withstand future projected climate impacts.
Pollution Prevention and Resource Efficiency		**Low to moderate risk**. Rural areas have lower levels of waste management facilities, with methods that are not environmentally sound or considerate of health issues; burning and burying of plastic is often used, which prevents consumption of plastic by livestock. Pollution and waste management activities will be incorporated into the project's site and land-based activities. The cash transfer during the lean season provided to beneficiaries will increase the waste entering the area, as communities will buy food items including tin and plastic packaging. The project might procure trees that are potted in plastics. However, no significant increase in generation of waste that will not be disposed of in an environmentally friendly manner is expected. Capacity development will be given to community members on integrated waste management. This will promote recycling of items where possible, repurposing of plastic waste during implementation, and using appropriate solid waste in gardens to improve soil quality. Waste management plans will be developed per project site or village, together with local authorities, to make sure that waste is responsibly managed. Resource efficiency aspects will be considered in the unavoidable implementation site support or capacity building activities, including use of water in agriculture activities, which accounts for 70% of the water use allocations in general, and fuel combustion for travel for project support activities. Terms of reference for any water use, water access and rehabilitation will incorporate geohydrological studies and water quality testing.
Public Health		**Low risk**. The project is not expected to result in any significant risks to public health. It will not introduce or promote the use of GMO seeds in the project sites, and will reduce the existing public health risks related to use of contaminated water for irrigation, livestock and human consumption, as it will provide safe water access points. The project will not promote the use of agrochemicals but will provide sensitisation on IPM and to reduce the risks of poisoning due to unsafe and inefficient application of any agrochemicals that farmers might purchase themselves. To mitigate risks of injuries, participants will be trained in First aid and occupational health and safety and provided with personal protective equipment. Normally the fish ponds for fish farming or other ponds could facilitate the growth of vectors like mosquitoes. However, there is no transmission of malaria or other vector-borne diseases in Lesotho. Should fishponds be selected through the CBPP, ESRS will be performed to further assess this risk.
Physical and Cultural Heritage		**Low risk.** The project is not expected to have any negative impacts on physical and cultural heritage. While there are nationally or internationally recognised heritage sites in the project districts, the project activities will not be implemented in or adjacent to these. The project will include observation of cultural practices and traditions when planning project interventions to ensure that project activities do not create cultural alienation of participants.
Lands and Soil Conservation		**Low to moderate risk.** The project could result in potential negative impacts on soils, groundwater, or water bodies – for example, some project activities will be located close to gullies and adjacent to water bodies. As the exact locations and activities are yet to be determined through the CBPP processes, further assessment is necessary once localities and adaptation options to be implemented are selected. At this stage, water abstraction rates will be determined by the MEF to ensure that there is adequate streamflow for ecological purposes, which the project will adhere to. Cumulatively, the communal gardens/demonstration sites or croplands are likely to exceed 10ha across all the villages where implementation will occur for Phase II. The intervention advocates for the use of organic manure and natural pesticide repellents for agricultural activities and therefore there is no envisaged provision of agro-chemicals or toxic materials by the project that could contaminate water sources. Potential risks should small-scale fish farming be selected as an adaptation option are related to the quantity of water that will be diverted from rivers to service the fish ponds and possible impacts of the discharged water on water quality. Assessments will be based on the exact location of this activity and will be conducted during project implementation but prior to construction of the ponds.. The project implementation will incorporate soil erosion management measures such as applying alternative rangeland encroachment management for plants like Chrysocoma as well as by soil bunding and stockpiling when working in areas with sensitive and highly erodible soils. Activities that include the use of local resources will incorporate rehabilitation of sites and selection of a single area for sourcing of stones, soils, and sand.

The risks identified in the table above have been further analysed during the environmental and social risks screening that is included in **Annex 7**. This includes a consideration of indirect and cumulative risks. Mitigation measures have been identified and are included in the Environmental and Social Management and Monitoring Plan (**Annex 7**).

Once the USPs of Components 3 are defined during project implementation, environmental and social risk screening will be carried out at community level and in consultation with the beneficiaries, as further explained in **Annex 7**. Coordination with departmental environmental authorities will be duly sought by the implementers (see **Annex 7**). Activities with a high risk will not be considered for implementation under components 1 and 2. There will be no project locations with the presence of Indigenous peoples. The project will include a Grievance Mechanism for the beneficiaries and affected populations, which is described in **Annex 8**.

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PART III: IMPLEMENTATION ARRANGEMENTS

III.A. Implementation Arrangements

A.1. Project Management

The proposed project will be executed by the Ministry of Environment and Forestry (MEF) and the Ministry of Agriculture, Food Security and Nutrition (MAFSN). The MEF will be responsible for the coordination of Component 1. Under Component 2, the MEF will coordinate climate change awareness raising activities while the MAFSN will coordinate activities on nutrition messaging. Under Component 3, the MEF will primarily coordinate soil and water conservation activities while the MAFSN will coordinate activities on nutrition sensitive assets at households and community level, reducing PHL and market access activities. The coordination between the two executing entities will be assured by the Project Steering Committee (PSC), which will provide strategic direction, and the Project Technical Committee (PTC), which will guide implementation. MEF and MAFSN will partner with a range of relevant partners, including NGOs, community organisations, UN agencies (e.g. UNDP, IOM, FAO, UNFPA and UNICEF) and line Ministries, most notably the Disaster Management Authority (DMA) in the Prime Minister's Office, and the Ministry of Local Government, Chieftainship, Home Affairs and Police (MLGCHAP), for execution of some activities and provision of technical assistance. See **Table 9~~7~~** for a description of the responsibilities of all stakeholders in project execution.

The World Food Programme (WFP), as Multilateral Implementing Entity (MIE), will oversee and coordinate the overall project management, oversee monitoring and evaluation, provide technical backstopping and report to the AF. WFP will provide technical, fiduciary and managerial support throughout all stages of project implementation. At the national level, the project will be coordinated through support of the WFP Country Office with support to coordination at the district and community level, mainly through the WFP Mohale's Hoek Field Office (which is responsible for the districts of Mafeteng, Mohale's Hoek and Quthing), WFP Mokhotlong Field Office and WFP Thaba Tseka Field Office.[165] Additional technical support will be provided as required by the WFP Regional Bureau in Johannesburg, South Africa, and WFP Headquarters in Rome, Italy.

Project Management Unit

A Project Management Unit (PMU) will be set up for the implementation of the project, and dedicated project staff employed to ensure integrated, effective, and efficient project execution. A fulltime National Project Coordinator (NPC), responsible for overall project implementation and coordination, will head the PMU located within the MEF in Maseru. The PMU in Maseru will include three Technical Experts and support staff:

- Technical Expert: Climate Services and Anticipatory Action, who will manage implementation and provide technical assistance (TA) for Component 1 across both LMS and DMA, thus promoting synergies and coordination across these two GoL entities;
- Technical Expert: Climate Change Awareness Raising and Education, who will manage implementation and provide TA for Component 2 (Outcomes 2.1 and 2.2); and
- Technical Expert: Knowledge Management and Project Communications, who will undertake project communications activities and be responsible for implementation of Outcome 2.3, thus providing additional dedicated expertise for the critical activities of knowledge management and evidence generation to support policy advocacy and sustainability.
- The PMU in Maseru will also include a Finance Officer (cost shared with the WFP CO), Procurement Officer, M&E Officer, and an Administrative Assistant. The WFP gender team will provide technical oversight in ensuring mainstreaming of gender, protection and nutrition in all components, with a short-term gender and nutrition consultant employed, who will work under the supervision of the WFP CO gender and nutrition focal point.

Two additional project technical staff will be located in the districts, to enhance TA provided and strengthen coordination with partners and across project activities. Thus a Technical Expert: Smallholder Agriculture Market Support, who will manage implementation and provide TA for Component 3 (output 3.1.3), and a Field Coordination Officer will be located at the Central Field Office in Mohale's Hoek in the southern region. The Field Coordination Officer will support effective coordination and efficient implementation of activities under Component 3 across all four districts. to support effective coordination and efficient implementation of activities under Component 3 across all four districts. In further response to lessons learned from phase I and to promote sustainability of the ground-level project activities, the project staff will include permanent government technical staff composed of 4 district coordinators and 12 area extension officers of the MEF responsible for soil and water conservation, range management, forestry; as well as 4 district agriculture officers and 16 area extension officers for horticulture and livestock of the MAFSN. The MEF district coordinators and MAFSN district agriculture officers (DAOs) will coordinate district activities and will work in close collaboration with the Field Coordination Officer, who will ensure overall coordination of activities across the four districts, under the guidance of the NPC. In each district, the MEF district coordinator and the MAFSN DAO already collaborate closely in their daily activities. An additional 4 planning unit staff in the MAFSN will have primary responsibility for field level monitoring across the four districts, under the guidance of the M&E Officer at the PMU in Maseru. The project will contribute to the salaries of these

[165] Some villages in Thaba Tseka (at Makhuleng) are administered in Mokhotlong. Thaba Tseka and Mokhotlong FO will provide technical backstopping for the WFP CO as part of the MIE role.

existing GoL staff, who will spend a commensurate amount of their time on implementation and reporting of project activities.

Gender and nutrition mainstreaming: WFP will provide the necessary support to the PMU and implementing partners to ensure that gender, nutrition, protection, and accountability to beneficiaries are maintained throughout the project lifecycle. This will be facilitated by WFP's Gender and Protection (G&P) team, led by the Gender and Nutrition Focal Point of the WFP Lesotho CO, in collaboration with the Gender Focal Points of the different executing entities, and the Food and Nutrition Coordinating Office of the MAFSN, with technical backstopping from the WFP Regional Gender Advisor. These WFP and GoL staff will coordinate gender and nutrition mainstreaming for IACoV II during planning, implementation, M&E and reporting; as well as into the complaints and feedback mechanisms. The WFP Lesotho CO Gender and Nutrition focal point will (i) attend the project's inception and work planning meetings to ensure that the gender and protection lens is applied in all project processes from the outset; (ii) provide mainstreaming support in annual/quarterly review meetings, operational plans, reviewing of annual/ quarterly reports; and (iii) facilitate workshops and training, with their operational costs being covered by existing WFP funds and workshop funds within the project budget. The WFP G&P Team salaries at the regional level will be covered by other budgets of the WFP RBJ, while the project will cover 40 percent of the salary of the WFP Lesotho CO Gender and Nutrition focal point, who will provide the gender, protection and nutrition oversight role. In addition, the project will commission a national gender and nutrition expert for regular short-term consultancy services, under the supervision of the WFP Lesotho CO Gender and Nutrition focal point, to inter alia (i) provide gender and protection awareness training and inputs to DoA extension workers and executing partners to strengthen capacities of key project staff, who will in turn sensitize and train community members; (ii) develop project-tailored gender SOPs so the PMU/ executing partners can ensure appropriate standards across project activities; and (iii) facilitate any additional gender-related workshops and training where this is identified as necessary. To further strengthen gender mainstreaming, the recruitment process for certain PMU staff – the M&E Officer and the Project Technical Specialist (PTS) – will specify that they have experience in this regard. Oversight/support roles and responsibilities for gender mainstreaming will be specified in the relevant staff ToRs. The WFP Lesotho CO Gender and Nutrition focal point and the WFP Regional Gender Advisor will support the staff recruitment process to ensure the ToRs adequately reflect these roles. In addition to the dedicated budget allocated for the salaries of these two people, sufficient budget for gender responsive implementation is provided through dedicated budget for adopting and operationalising the climate change / food security / gender / nutrition nexus (CC-FS-GEN-NUT) as a central organizing concept, across numerous project activities.

Arrangements for IE supervision of executing entities for implementation of ESMP

WFP as the IE is tasked with overall responsibility for ensuring that the project ESMP is implemented, and for its adaptive management. This includes ensuring that the USPs are adequately screened. The detailed process for screening the USPs after the CBPP is conducted in the 18 community councils is set out in **Annex 7**. While the screening will be led by the Department of Environment (DoE) in the MEF, WFP experts from the CO and the RBJ will provide technical support and oversight of this process. The outcomes of the identification and ES screening of USPs will be conducted at the beginning of project implementation and documented in the annual Project Performance Reports. While the screening of ES impacts is led by the DoE, the implementation of activities related to natural resource management and livelihoods is carried out by the technical departments in both the MEF and the MAFSN. Monitoring of the ESMP for the identified activities will be conducted by the planning units within both MEF and MAFSN, in collaboration with the M&E Officer in the Project Management Unit (PMU). WFP, as the IE, will provide technical support and oversight, through technical experts at the CO and the RBJ, to ensure that the screening processes and adaptive management and implementation of the ESMP comply with the Environmental and Social Policy and the Gender Policy of the AF, as well as with applicable WFP and GoL policies.

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At the request of the Government of Lesotho, WFP is tasked with managing funds, staff recruitment, cash-based transfers and procurement processes.

Arrangements for procurement: WFP is tasked with managing procurement processes on behalf of the GoL. This responsibility includes ensuring the timely and efficient delivery of goods and services necessary for the successful execution of project activities. WFP's role encompasses overseeing all procurement procedures, from initial planning and sourcing to final delivery and quality assurance to support the effective implementation of various initiatives and projects in Lesotho. The PMU includes a fulltime Procurement Officer, dedicated to the project, to overcome challenges in procurement delays experienced in phase I.

- **International Procurement:** WFP will handle international procurement processes, which involve sourcing materials, equipment, and services from outside the country as needed. This includes coordinating with international suppliers and managing cross-border logistics to ensure seamless procurement operations.

- **Procurement Policies:** WFP will apply its procurement policies and procedures to ensure that all procurement activities are conducted with transparency and efficiency. These policies are designed to uphold high standards and best practices in procurement management.
- **Coordination with Government:** WFP will work closely with the Government of Lesotho to ensure that procurement specifications align with the government's requirements and project needs. This coordination is essential for meeting the expectations and objectives set forth for project implementation.
- **Oversight and Compliance:** WFP will ensure that procurement processes comply with local laws and regulations, as well as align with the requirements set by the Adaptation Fund and WFP. This oversight is crucial for maintaining legal and procedural integrity throughout the procurement process.

Arrangements for recruitment: WFP will handle the recruitment processes for some PMU staff, excluding the permanent government staff that comprise the district coordinators, district agriculture officers, extension and planning unit staff at district level. WFP shall include the EEs in the selection of the PMU staff.

Arrangements for Cash-Based Transfers: WFP will use its systems including SCOPE for beneficiary management and will engage a financial service provider(s) through a competitive process for distribution of cash-based transfers during the lean season.

A.2. Project governance structure

High-level oversight of the project will be maintained through a **Project Steering Committee (PSC)**, to include senior technical representatives (Directors) from the key Ministries, including Prime Minister's Office (PMO), MEF, MAFSN, Ministry of Local Government, Chieftainship, Home Affairs and Police (MLGCHAP), National University of Lesotho (NUL), Lesotho National Farmers Union (LENAFU), and the UNFCCC, AF and GEF focal points. In order to meet requirements for at least one member of the steering committee to be gender competent, the PSC will include a representative from the Police Child and Gender Protection Unit (CGPU). This will be the same PSC as that for the LMS/UNEP/GEF LDCF EW Phase II/III project, to promote coherent, effective and efficient implementation. The PSC will be set up in the framework of the National Climate Change Committee (NCCC), which is made up of different line ministries, development partners and private sector. The NCCC will act as a platform for coordination with other partners and initiatives and will provide advice when needed.

Technical oversight of the project will be provided by a **Project Technical Committee (PTC)**, comprised of representatives of the MEF, MAFSN, DMA, WFP, Ministry of Gender, Youth, Sports and Recreation, UN agencies (UNDP, IOM and FAO), Lesotho Council of NGOs among others. The PTC will meet quarterly and will be responsible to manage and provide technical guidance to project implementation. The PTC is the key structure to promote sound operational coordination between the two executing entities, MEF and MAFSN. While interaction between project and ministry staff across the ministries will occur daily, the quarterly meetings of the PTC will provide assurance that the necessary joint working is on track. The PTC will be chaired by the NPC and will include representatives of the key executing ministries as well as a technical representative from each district.

At the district level, the project will work through the existing district coordination structures such as the **District Project Implementing Teams (DPITs)** to facilitate integrated development and coordinated implementation of project activities on the ground. The DPITs are made up of District Administrator, District Council Secretary and heads of government departments, development partners and line ministries responsible for district development. The MEF district coordinators and MAFSN district agriculture officers (DAOs) who will coordinate field activities in the project districts are part of the DPITs.

At the community level, implementation processes will be managed through **village coordinating structures** that include all village authorities (community councils, which are local government structures, as well as traditional authorities), extension staff, NGOs, and the socio-economic groups (SEGs) established during community based participatory planning. The SEGs will include those consulted during design, which included women, men, youth, the elderly, farmers, herders, teachers, orphans, minority groups such as people with disabilities, pregnant and lactating women, traders, local leaders, traditional healers, community-based organizations, community health workers, men's and women's initiation schools, and support groups for people living with HIV/AIDS. While a range of SEGs was consulted, the overall gender representation in the consultations was 56 percent female and 44 percent male. This is due to a variety of factors, such as high migration rates among men and higher interest of women in food security-related matters. This gender representation will be maintained in the village coordinating structures.

Figure 4: Organogram showing project governance and execution structure

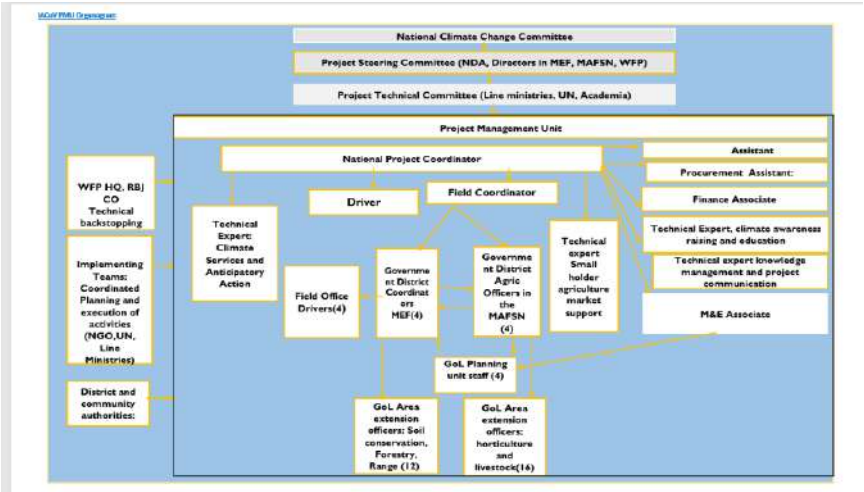

Table ~~97~~ describes the implementation responsibilities of the various stakeholders per project output. Further specific roles, responsibilities and deliverables of each partner will be agreed during project inception and set out in letters of agreement with the GoL.

Table 9~~7~~. Project execution plan – mapping of stakeholder engagement per output

Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action, and gender-responsive last mile climate services.

Output	Stakeholder	Type	Role in project
Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature.	Lesotho Meteorological Services (LMS)	Government agency	Executing Entity: Facilitation and implementation of the activities foreseen for the output; development of enhanced climate services; coordination with various relevant agencies; technical guidance and backstopping.
	Disaster Management Authority	Government agency	Coordinator: assist with facilitating linkages to all government ministries that will invest in enhancing climate services and early warning for smallholder farmers and the public at large. Spearhead the horizontal scaling of anticipatory Action to 10 districts of Lesotho and facilitate and coordinate early warning systems strengthening and functionally.
	WFP	UN agency	Technical assistance on last mile climate services (LMCS) and developing more targeted and effective agro-met advisories
	Local communities	Individuals/community groups	Participate in dissemination of enhanced gender-responsive climate services; receive and use climate services
Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services.	Lesotho Meteorological Services	Government agency	Lead role in the facilitation and implementation of the activities foreseen for the output. Develop impacts tables/maps and identify hazards. Generate impact-based forecasts with support of relevant stakeholders. Coordination with various relevant agencies.
	WFP	UN agency	Technical assistance in developing impact-based forecasts and advisories
	Lesotho Red Cross (LRC)		Support development of impacts tables/maps and hazards Identification. Harmonization of AA plans for drought and extreme temperatures, including of triggers and thresholds.
	Disaster Management Authority	Government agency	Coordinate dissemination of early warning advisories for significant hazards arising from IBF to targeted communities.
	WFP	UN agency	Technical backstopping on the innovations for revenue generation
	LMS	Government agency	Coordination of early warning actors and development of SOPs for EWS (its functionally and key relevant stakeholders to support sustainability).
Output 1.1.3: Enable GoL innovations to generate revenue for sustainability	LMS	Government agency	Identify and lead innovations relevant for revenue generation. Lead process to develop joined-up approach to climate risk financing.
	WFP	UN agency	Technical backstopping. Assist GoL to develop a joined-up approach to climate change financing
Output 1.2.1: Scale-out the anticipatory action for drought system to all 10 districts	DMA	Government agency	Lead the development of drought SOPs in the remaining six districts
	WFP	UN agency	Technical backstopping
	LRC	Government agency	Participate in enhanced and recurring training strategy (ToTT)
		Individuals/groups	Participate in AA response including ongoing training on climate-resilient approaches
Output 1.2.2: Support development of gender-responsive national multi-hazard AA system	DMA	Government Agency	Coordination of government and private sector on rolling out of AAP
	Department of Gender	Government Agency	Lead mainstreaming of gender issues under AAP
	Department of Water Affairs	Government Agency	Guide and monitor all water works at community levels post triggering of AAP
Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis	WFP		Technical assistance on last mile climate services (LMCS) and developing more targeted and effective agro-met advisories. Technical support to strengthen Impact Based Forecasting and climate services information dissemination to end-users.
	LMS	Government Agency	Lead role in developing LMCS, including through Observers in the districts. Coordinate other SHs in co-development of LMCS, train community groups on LMCS.

	Ministry of Agriculture Food Security and Nutrition (MAFSN), MEF	Government Agency	Extension staff participate in training on co-development of LMCS and play ongoing role in dissemination of LMCS
	Community groups, herders, women, youth	Individuals/groups	Participate in training and disseminate LMCS on an ongoing basis
	Department of Gender		Lead mainstreaming of gender issues for LMCS and participate in dissemination of LMCS to all vulnerable communities

Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation

Output	Stakeholder	Type	Role in project
Output 2.1.1: Strengthened national and district-level institutional structures and systems for climate change awareness raising and communication	LMS	Government agency	Lead EE role in coordinating implementation; Lead revision of the NCCCS.
	NGOs, MEF, MAFSN, MLGCHAP, MoNR, MoE, Infrastructure, Mining, Health, Private Sector, Academia	NGOs, Government agencies, Private sector	Participate in revising and implementing NCCCS
	Media houses	Media / Private sector	Participate in capacity development and improve/expand reporting on climate change and nutrition to further take on the role of advocates for climate change adaptation.
	Department of Range	Government agency	Raise awareness and provide education on rangeland and wetland protection and rehabilitation and herd management, fire prevention and management, community sensitisation.
	National Climate Change Committee (NCCC)	Government agency	Participate in activities to strengthen the NCCC's capacity and effectiveness in their coordination role. Convene seminars etc and broaden awareness raising.
	District Project Implementing Teams (DPITs)	District	Support the implementation of district action plans under the NCCCS in the 10 districts
	Ministry of Local Government	Government agency	Empower local government structures in the 10 districts and designate them as community ambassadors to ensure the integration of climate change strategies into all local activities
	Civil society		Participate in awareness raising activities and play ongoing role in AR.
	Ministry of Gender, Youth, Sports and Recreation	Government agency	Participate in dissemination of enhanced gender-responsive climate change information;
Output 2.2.1: Deepen and scale out teacher training and school climate change activities	Ministry of Education (National Curriculum Development Center	Government agency	Expand the use of the climate change toolkit for teachers and extend training programs to additional districts. Ensure that climate change is integrated into school curricula across the 10 districts, and provide support to inspectors for proper implementation
	MAFSN	Government agency	Capacity strengthening of climate-smart agriculture in schools and provide extension support
	MEF	Government agency	Agroforestry demos and soil and water conservation
	Scholars		Learner competition on climate change adaptation
Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy	PMU	Government	Lead role in learning, knowledge management, and communication strategy; coordinate activities of other stakeholders in this regard
	WFP	UN Agency	Technical backstopping on L,KM&C and integration of M&E with this
	National University of Lesotho, etc.	Academia	Conduct action research and assist with evidence generation for project effectiveness

Component 3: Building resilience through community-based adaptation measures to strengthen food systems

Output	Stakeholder	Type	Role in project
	MAFSN	Government agency	Facilitate the CBPP process at the local level
	MEF	Government agency	EE: Convene participatory local adaptation planning workshops in the four districts.

Output 3.1.1: Participatory community adaptation plans developed.	Ministry of Local Government, Chieftainship, Home Affairs and Police	Government agency	Mobilization of local participation. Coordination of implementation of field activities in the identified areas.
	WFP	UN agency	IE: Technical assistance on participatory local adaptation planning and implementation support.
	Local communities	Individuals/groups	Guided through CBPP, communities develop their adaptation plans and household targeting
Output 3.1.2: Community and HH-level nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation.	MAFSN (Dept. of Crops, Livestock, Horticulture, Irrigation, Nutrition, Field Services)	Government agency	Asset creation activities execution such as horticulture, livestock production, nutrition in communally owned areas and household levels. Improvement of climate-smart agricultural activities. Training of farmers on livelihood options
	MAFSN Department of Research	Government agency	Demo fields/drought resistant seed testing before roll-out. Technologies for enhanced pest control (fields and storage).
	MEF (Department of Forestry, Soil and Water Conservation and Department of Range Management)	Government agency	EE: Asset creation activities execution for the households and communities such as management of rangelands, soil and water conservation, and agro-forestry. Training of farmers on natural resource management
	MLGCHAP	Government agency	Community mobilisation and custodians of development projects, conflict resolution, gender-based violence issues
	World Vision	NGO	Partner and Support in the implementation of livelihoods projects, training of communities on nutrition security
	CRS	NGO	Partner and Support in the implementation of livelihood projects, training of communities on the SILC approach
	FAO	UN agency	Facilitate disease surveillance with the Department of Livestock, advise and distribute the right varieties of seeds to farmers
	Local communities	Individuals/groups	Receive ongoing targeted training and implement climate-resilient and organic agricultural approaches and technologies
Output 3.1.3: Entrepreneurial opportunities promoted and market linkages established for climate-resilient value chains to promote gender equality	MAFSN Department of Marketing	Government agency	Support market-oriented production and promotion; Market research & information dissemination & market infrastructure development, value chain development, formation of commodity groupings for aggregation Facilitate market linkage platforms; food handling and standards,
	Dept. of Standards & Quality Assurance, Ministry of Trade, Industry, Business Development & Tourism (MTIBDT)		Development of quality standards Capacity strengthening on quality
	MTIBDT Department of Small Business	Government agency	Small business promotion. Exploration of market potential for priority value chains
	Smallholder farmers	Individuals/groups	Target group/recipients of capacity building initiatives/producers and sellers for different crops
	Lesotho National Farmers Union (LENAFU)	Cooperative	Coordinate and support SHF targeting Cooperating partner to deliver capacity strengthening for farmers
	Rural Self-Help Association of Lesotho (RSDA)	NGO	Cooperating partner to deliver capacity strengthening for farmers
	Private Sector Foundation of Lesotho	Private sector	Coordination of private sector entities/value chain actors/off-takers
	Basotho Enterprises Development Cooperation	Government agency	Partner in youth development and incubation, entrepreneurship promotion, and facilitation of access to finance/markets
	World Vision, other NGOs	NGO	Cooperating partner to deliver capacity strengthening for farmers
	Department of Cooperatives (MTIBDT)	Government agency	Sensitization and training on formation of cooperatives to farmer groups for aggregation Issue of cooperatives licenses/Farmer cooperative registration
Output 3.2.1: Policy advocacy and systems development to support gender-responsive and climate adaptive social protection	WFP	UN agency	Leads output. Conducts policy advocacy and provides technical backstopping for climate adaptive land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system; and associated M&E system
	MEF and Ministry of Social Development	Government agency	Develop impact-oriented M&E system for climate adaptive social protection; develop and implement strategy; implement and report on community-based monitoring

III.B. Financial and project risk management

Financial and project risk management measures will be assessed throughout project implementation. Potential risks related to project implementation and response measures are described in **Table 108**.

Table 108. Financial and Project Risks and Response Measures

Risk	Ranking	Explanation and response measures
Economic environment	Medium	The economy is still highly dependent on government for economic activities and fiscal revenues, with low investment in key areas, low productive capacity, and high-income inequality.[166] Although there are weaknesses in public investment management and efforts to control spending are delaying the implementation of capital projects, the current government, which assumed power in 2022, is placing effort into cultivating a favourable enabling environment for the private sector and international investment to improve the economy. While the project will not operate at a macroeconomic level, it will enhance income generation and economic flows in the project areas, which will start to increase productive capacity and reduce income inequality. Project actions will create opportunities for enhanced private sector activity through enhancing market access and linkages along selected value chains. Project actions to increase entrepreneurship in the rural areas will reduce the burden on government investment.
Political risk	Medium	Lesotho has experienced periods of political instability and insecurity in recent years, which constrain the ability of state institutions to deliver public services that could serve to increase adaptive capacity and reduce climate vulnerability of community members. The UN Country Common Analysis (CCA) noted that highly unstable coalition governments, political entrepreneurship, the politicization of the civil service and the security forces, and fiscal laxity, were some of the reasons for the current conditions. To mitigate this risk, the PMU supported by WFP will establish strong operational partnerships with various national organizations and engage in evidence-based policy advocacy to enhance delivery of public services to address climate risk, such as a climate-risk informed fato-fato programme and the AA system. The project will implement activities to build GoL systems and engender full ownership amongst government stakeholders.
Extreme events such as droughts and floods	Medium	Drought risk is increasing in the project areas, and flash flooding has occurred more frequently, although this is mainly concentrated along the major rivers and not in project areas. Project actions under phase I have resulted in decreased impacts from drought through the anticipatory action system. Phase II will scale out the AA for drought across the country and enhance the effectiveness of the system, as well as facilitate the development of the national multi-hazard system for AA. Climate-resilient adaptation options and livelihood diversification activities under Component 3 will further reduce the effects of extreme events.
Technical capacity of government partners	Medium	Insufficient technical capacities of national partners, particularly at the field level, could result in delays in project implementation and/or poor quality of adaptation approaches and assets. Building on lessons learned from phase I, the project will adopt a programmatic approach to training at all levels and across government and community participants. GoL extension staff will benefit from targeted and ongoing skills development to supplement the ongoing efforts of the GoL in this regard. The project will advocate for the capacity development approach to be incorporated into GoL systems, for sustainability beyond the project operations, as well as will continue to develop partnerships with a broad range of development organizations for enhanced support at the field level. WFP as MIE will provide backstopping to ensure sustainability and to limit risks, including through the promotion of the CC/FS/GEN/NUT nexus across components. A strong project management team will be put in place.
Co-ordination amongst implementing partners	Medium	Coordination among government agencies could have reduced effectiveness due to the large number of agencies involved, possible captured by sectoral interests, and multiple reporting lines. To mitigate this risk the project will continue to advocate for enhanced coordination through structures that have proved effective such as the project implementation teams (PITs) at district level, as well as the project technical team at national level. Strong leadership from senior government officials, including from the executing entities at different levels who have been executing phase I and who have been involved in planning for phase II, will reduce this risk. The project will strengthen knowledge management and sharing mechanisms to identify synergies and opportunities for cooperation, and to minimize the risks of competition and duplication.
Environmental risk	Low to medium	In some villages, alien invasive species are present which could potentially undermine the intentions of the land rehabilitation activities, as well as woodlots that are planting alien invasive tree species mainly pine. Project activities will directly mitigate these risks, as value chains will be developed to provide an economic return for alien invasives such as rosehip. The alien invasive species that are present in some villages which could potentially undermine the intentions of the land rehabilitation activities are primarily alien trees such as pine that have been planted in woodlots, as well as Chrysocoma, a fast-growing invasive plant in Lesotho that competes with native vegetation, reducing biodiversity and impairing soil health by altering nutrient cycles. To prevent the further spread of both Chrysocoma, project activities will include engagement of community members to actively remove it in and around the villages to reduce their spread and competition with native plants. Sensitive areas will be delineated and protected from disturbances, to prevent the spread of alien invasive species into them. Appropriate vegetation restoration using native plant species will be carried out. The project will conduct a climate-informed tree suitability study (agroforestry, afforestation, fruit trees) (activity 3.1.1.g.) in close collaboration with the MEF so that suitable indigenous and non-invasive aliens, if any, are used; this will inform all subsequent project activities as well as the ongoing advisory work of the MoEF. Project activities will further examine whether the Miyawaki afforestation technique - for cultivating fast-growing groves of native plants, with dense, mixed

[166] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28

		planting intended to simulate the layers of a natural forest - could be viable in Lesotho and will pilot the approach if this is positively indicated. Beyond the boundaries of the villages, the project will assist in the eradication of alien invasive species such as rosehip from the rangelands. The use and presence of alien invasive species such as prickly pear, pine, wattle, rosehip and blue gum in Lesotho's farming and woodlot production activities pre-exists project implementation; such plants will not be distributed to new areas. Invasive species will not be introduced during the fish farming activities, should the fishponds option be chosen during the CBPP. Regular monitoring and adaptive management will ensure that biodiversity is being effectively supported and the spread of alien invasive species is prevented. The concrete adaptation activities to be implemented under component 3 will be selected from an adaptation menu of options that has been pre-identified in consultation with communities and project/GoL technical staff. These adaptation options have been pre-screened during design phase and activities are expected to be categorized low to moderate risk. Specific selected ~~community~~ adaptation options ~~plans~~ will be screened before their approval to assess the actual risk category of each activity, taking into consideration the location and the social and environmental context. Should a moderate ~~or high~~ risk be identified, the project will take adequate measures to address and mitigate the risk. Should a high risk be identified, the sub-project will be redesigned with the relevant communities to reduce the risk to medium or low. A detailed description of the screening process for USPs and the Environmental and Social Management Plan for this proposal is included in **Annex 7**.
Cost fluctuations	Medium to high	Variations in the prices of goods and services can affect procurement budgets. These result from external factors like global and regional market volatility, inflation, or changes in supply and demand that can lead to unexpected cost increases. To address this risk, WFP as the MIE, will provide technical backstopping on strategic planning, robust risk management practices, regular monitoring, and the implementation of contingency plans.
Global disease outbreak	Medium to high	Global disease outbreaks like COVID 19 represent a significant operational risk for project execution. The project may need to implement remote working arrangements, enhanced hygiene protocols, or other measures to protect staff and the community members. The project will regularly assess and monitor risks related to disease outbreaks and adjust strategies accordingly.

III.C. Environmental and social risk management

The entire project was screened for environmental and social risks against the 15 principles outlined in the AF's Environmental and Social Policy, as set out in **section II.K** above. The project proposal is classified as a "Category B" or "medium risk" project, mainly due to the presence of Undefined Sub-Projects in Component 2 of the project. The full E&S Screening and assessment is included in **Annex 7**.

The Environmental and Social Management Plan (ESMP) is contained in **Annex 7** and is articulated at two levels:

1. Risk mitigation measures (and monitoring and reporting thereof) for the risks identified through the risk screening and assessment of the proposal;
2. Procedures for the screening, assessment and mitigation of the Undefined Sub-Projects (in Components 1 and 2) during the implementation of the project. **Annex 7** lists potential and excluded sub-projects.

The ESMP elaborated for this project will consider and track risks that have been identified at proposal stage; screen for any new risks during the implementation of the project and serve to monitor and report on the mitigation measures. The monitoring and reporting measures proposed in the ESMP are fully integrated in the monitoring plan of the project. An amount of USD 16,350 is included under activity 3.1.1.i, for workshops, meetings and field visits for ESS and for implementation of the ESMP. This amount will be supplemented by additional budget within the overall M&E budget, to provide sufficient budget for monitoring ESMP compliance. Arrangements for IE supervision of executing entities for implementation of ESMP are set out in section III.A above.

The ESMP does not allow the implementation of activities, including undefined sub-projects, with high risk. The proposed project will fully comply with national laws particularly the Lesotho Environmental Impact Assessment (EIA) Regulations, the Adaptation Fund's Environmental and Social Policy and the WFP's social and environmental standards. During implementation, WFP and its partners will ensure effective coordination with the Department of Environment, which will be facilitated through the project structures at different levels as the MEF is one of the EEs, in order to duly comply with the requirements established by the Lesotho EIA Regulations (2021). In this regard, a screening form will have to be obtained from the DoE for each Field-Level Agreement (sub-project) and submitted to the DoE for review before implementation starts.

The beneficiaries and affected populations have access to a Grievance Mechanism which is described in **Annex 8**. Complaints and feedback can be filed through different channels, in order to make it as inclusive as possible.

III.D. Monitoring and evaluation arrangements

Comprehensive and gender-responsive project monitoring, reporting and evaluation will be conducted in line with the WFP guidelines, procedures and standards to ensure effective tracking of project outcomes.[167] Regular data collection, analysis, and reporting with a gender-responsive lens will be conducted to ensure that gender considerations are integrated into every stage of the monitoring process. Monitoring will involve both internal and external stakeholders to maintain a balanced perspective, facilitating accurate findings that drive evidence-based decision-making.[168] WFP will engage with external partners for independent evaluations, as well as work with WFP's Office of Evaluation (OEV) to ensure the quality and integrity of evaluations that will contribute to learning and accountability. WFP will ensure that project financial monitoring and accounting follow the International Public Sector Accounting Standards (IPSAS), and also accord with and adhere to national regulations and guidelines.

The overall responsibility for project monitoring, evaluation and reporting will rest with WFP. The WFP Research, Monitoring and Assessments (RAM) unit in the CO will provide guidance to the National Project Coordinator and to the M&E Officer in the PMU and ensure that M&E processes, outcomes, outputs and activities are aligned with the AF Strategic Results Framework and with AF rules and regulations. An M&E plan will be developed to clearly outline the agency responsible for the collection and reporting of each indicator. All indicators will be monitored on a gender-disaggregated basis, as shown in the project results framework. The project results framework indicators and targets will be adjusted to align with the M&E plan, which will include data sources, collection frequency, methodologies, sampling, and a timeline for the MTR and Final Evaluation.[169] The four planning unit staff in the MAFSN will have primary responsibility for field level monitoring across the four districts, under the guidance of the M&E Officer at the PMU in Maseru.

The following will be the key project monitoring and evaluation and reporting activities:

Inception planning: During the six-month inception period, activities will include developing and signing agreements with the relevant stakeholders and partners, recruitment and induction of staff and procurement of project equipment and material. The inception period will also involve: (i) planning and stakeholder engagement for continuing the relevant coordination structures including the PSC, PTC, and the decentralised coordination mechanisms within the district administrations; (ii) setting up of project accounts; and (iii) holding an inception workshop to develop the first year workplan and detailed budget, and further refine implementation approaches, including targeting approaches. The inception workshop will also develop or revise systems/tools including for M&E, community engagement, tailoring the complaints and feedback mechanism, and approving pre-developed standard operating procedures (SOPs) to clarify roles of the stakeholders and partners. All planning, monitoring and reporting templates shall be validated during the inception workshop and endorsed by the PSC.

Baseline assessment: The project baseline assessment will be conducted during the inception phase, with the M&E system set up early in this period to facilitate timely data collection. Planning for the baseline, including methodology development and stakeholder engagement, will be prioritised in the initial stages of the inception process so that baseline values for the project indicators are established within the first six months of the project. The project baseline report and the updated project results framework will be shared with the AF at the end of year 1, no later than the submission of the first PPR.

Quarterly and annual progress reports: Regular monitoring during project execution will be reported through quarterly progress reports and annual progress reports. The National Project Coordinator within the PMU will facilitate preparation of quarterly progress reports to be submitted to WFP and the PSC, via the PTC. A strong management information system (MIS) with constantly updated dashboards and almost real-time monitoring of key indicators will be developed as a part of project. This information will feed into the periodic reporting and support evidence-based decision making throughout the project.

Annual Progress Reports: The National Project Coordinator, with technical support from the WFP CO (Head of Programme), will coordinate inputs from the implementation sectors and responsible partners to prepare Annual Progress Reports for submission to WFP and the PSC. The reports will outline financial, procurement and activity implementation progress against the targets in the results framework as well as compliance with the requirements of the environmental and social assessment and management frameworks.

The annual reports and workplans will be reviewed and approved by the PTC before being submitted to WFP and the PSC no later than one month after the end of the project year. WFP will then consolidate and submit the Annual Progress Reports in the standard AF PPR template to the AF Secretariat no later than two months after the end of the project implementation year.

[167] This will include leveraging relevant indicators from WFP's Corporate Results Framework (CRF) indicators, where these align with project goals.
[168] This will be complemented by WFP's Programme Monitoring and Reporting Service (APPM), which offers continuous monitoring of activities and progress to maximize efficiency in resource management.
[169] Monitoring activities will be supported by WFP's APPM, maximizing efficiency in resource management.

The national PMU will ensure that the PPRs are supplemented by annual project work plans for the next Project year, also to be approved by the PSC. The annual plan for the forthcoming year will include details on specific project activities, roles and responsibilities, and a detailed budget with a disbursement schedule and procurement plan for major items included as annexes. At the end of the project, a project completion report shall be prepared within six months after project completion and submitted by WFP to the AF secretariat.

Mid-term review, final evaluation, and audit: An external independent mid-term review will be carried out half-way through project implementation and will provide an overview of the state of project implementation, effectiveness of implementation arrangements, and recommendations for project modifications if any. An independent final evaluation will be completed within nine months after project termination. Final copies of the MTR and evaluation reports will be shared with the MEF and MAFSN for their records. Finally, a financial audit will be provided by WFP to the AF Secretariat six months after the end of the fiscal year in which the project ended.

Table 11~~9~~ outlines an indicative plan, costing, schedule, and responsibilities for M&E and reporting.

Table 11~~9~~. Indicative Project Monitoring and Evaluation and Reporting Schedule

Type of Report	Responsible parties	Budget (USD)	Timeframe/ submission deadline
Inception Report	Project Coordinator	14,395	1 month after inception workshop
Baseline Study Report	Project Coordinator M&E Officer in PMU	35,000	1 month after completion of the data collection
Monthly dashboard report	Project Coordinator	0	Monthly (Last day of month)
Quarterly Progress and Financial Report	Project Coordinator	0	End of each quarter (1 month after end of quarter)
Project Steering Committee & PTC meetings (minutes, presentations & action plans)	Project Coordinator	9,600	PSC Quarterly
Annual Progress Reports (Project Performance Report-PPRs)	Project Coordinator WFP CO (DCD/Head of Programme)	0	Annually, 2 months after the end of the project implementation year)
Annual project monitoring	M&E Officer in the PMU	55,000	Annually for 5 years
Mid-Term Review Report	External Consultants WFP CO RAM unit	73,082	2.5 years after project inception (3 months after data collection)
Final Project Report (Project Completion Report)	Project Coordinator WFP CO (Head of Programme)	0	End of project (6 months after end of project)
Final Project Evaluation Report	External Consultants WFP CO RAM unit	100,000	End of project (within 9 months of project completion)
Financial Audit	WFP Auditing company	20,000	End of project (within 6 months of fiscal year end in which project ended)
Total		**307,077**	

III.E. Project results framework

In addition to the specific indicators set out in this results framework, the project will contribute to the achievements of the NDC and the SDGs of Lesotho, as specified in section II.F. **All indicators will be disaggregated by sex and age, where relevant**.[170] As set out in section III.A.1, WFP will oversee and coordinate the processes of monitoring and evaluation, while the PMU, which will have a fulltime Monitoring & Evaluation Officer, as well as a Knowledge Management and Project Communication Technical Expert, will ensure that M&E processes happen on the ground in a timely and effective manner. As is usual during Inception, an M&E plan will be developed that specifies monitoring activities and processes and who will carry these out at different levels. At this stage, it will be determined which indicators will only be monitored during the MTE and final evaluation, by an external consultant, if any.

[170] Note: Indicators shaded in blue are AF indicators that are also in the Project/AF Results Framework.

Project impact	Indicator	Baseline[171]	Target	Means of Verification & Monitoring Responsibility (MR)	Risks and Assumptions
Enhanced adaptive capacity, resilience and food security of vulnerable and food insecure households and communities to the impacts of climate change on food security	I.1. Climate Resilience Capacity Score (CRCS)	TBD, Percentage of targeted households with high level of CRCS	TBD after baseline, % targeted HHs reporting high level of CRCS, to be at least 50% above baseline; Disaggregated by HH head by gender, age & sub-group	Baseline Survey, Mid-term Review and Endline Survey at the household level MR: WFP	• Ongoing effects of the COVID-19 pandemic on Lesotho's economy could delay implementation and reduce effectiveness of project activities, thus potentially reducing impact. (R) • The current political stability in Lesotho will continue during project implementation. (A)
	I.2.Household dietary diversity score[172]	% HHs with Dietary Diversity Score of 6/more food groups: 51%[173]	Increase percentage of HH with dietary diversity score of 6/more food groups to 80%. Disaggregated by HH head by gender, age & sub-group	Mid-term Review and Endline Survey MR: WFP and PMU	
	I.3 Food Consumption Score (FCS)[174]	Acceptable: 47% Borderline: 40% Poor: 13%	Reduced prevalence of HHs with poor food consumption and with poor & borderline food consumption (SUM), compared to baseline. By gender, age, sub-group of HH head	Mid-term Review and Endline Survey MR: WFP and PMU	

Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action, and gender-responsive last mile climate services					
Outcome/Output	**Indicator**	**Baseline**	**Target**	**Source of Verification & Monitoring Responsibility (MR)**	**Risks and Assumptions**
Outcome 1.1: Strengthen institutional capacity and systems to enhance accuracy of sub-seasonal to seasonal climate forecast	1.1.a. Climate services score[175]	TBD	TBD at inception; project will aim for at least 50% of HHs in targeted villages with improved climate services score; Disaggregated by HH head by gender, age, sub-group	Baseline & Endline Survey MR: WFP and PMU	• Climate services can be tailored to the needs of the communities and targeted communities use these – assumes the necessary localized data is available or can be developed (A)
	1.1 b Number of enhanced programme designs, processes, and platforms contributing to Zero Hunger and other SDGs implemented at scale by national organizations following WFP capacity strengthening support	0	MT: TBD End: TBD	Baseline & Endline Survey MR: WFP and PMU	
	1.1c Number of enhanced programme designs, processes, and platforms contributing to zero hunger and other SDGs	0	MT: TBD End: TBD	Baseline & Endline Survey MR: WFP and PMU	

[171] Since some project areas and beneficiaries are the same as for phase 1, while others are different – in Thaba Tseka as well as in the 3 southern districts – it is not possible to provide an overall baseline. Therefore, this will be developed during the baseline study, which will be completed in year 1 of IACoV phase II as per the AF Evaluation Policy. This will be integrated into the project results framework. The project baseline report and the updated project results framework will be shared with the AF at the end of year 1, no later than the submission of the first PPR. Currently, where the activity involves a mix of beneficiaries/areas from phase I and those that will be new to phase II, the baseline is 'TBD'. In some cases, the target is also set as 'TBD', as this depends on the localities selected during project inception, as well as self-selection of interested beneficiaries.

172 Used as a proxy measure of household food access, i.e. measures the impact of the project on food access

[173] LVAC, 2024 – average for IACOV districts

174 The household Food Consumption Score (FCS) is associated with household food access and is therefore used as a proxy for household food security.

[175] This WFP Corporate Results Framework outcome indicator measures the extent to which communities are able to manage climatic shocks and risks through information and practices, including LMCS.

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	endorsed by national stakeholder with WFP capacity strengthening support.				
	1.1.d. National capacity to produce more accurate S2S forecasts	National tools/ capacities for S2S forecast improved but still at 50% desired level	National tools/capabilities at 80% of desired level, TBD at Inception	Baseline, MTR and End Term survey MR: WFP and PMU	
	1.1.e. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis (AF 1.1.)	Percentage of stakeholders receiving timely threat and hazard information (TBD)	Increase of stakeholders receiving timely threat and hazard information: 90%	Project Reports MR: WFP and PMU	
Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature	1.1.1.a. Systems upgrade to HPC	0	Complete upgrade to HPC by MT End: 1 system fully operational for S2S forecasting	Project reports MR: WFP and PMU	• No major shocks jeopardize the implementation of trainings (A) • Vandalism of the AWS (R) • Cyber-attacks on the HPC (R)
	1.1.1.b. maintenance package for AWS implemented	Not started	MT: In progress End: AWS maintenance package fully implemented	Workshop reports, Endline survey MR: WFP and PMU	
	1.1.1.c. # Staff trained on providing enhanced and systematic S2S forecasts	0	MT: 9 men; 1 woman End: 20 men; 6 women	Project reports, Endline survey MR: WFP and PMU	
Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services	1.1.2.a. Number of stakeholders trained on IBF	0	20, of whom at least 10 are women, TBD at Inception	Project/ Workshop reports MR: WFP and PMU	• National and sub-national levels will remain engaged to support the implementation of IBF. (A)
	1.1.2.b. IBF system developed and piloted in districts (corresponds to AF Output 8)	0	MT: In progress End: IBF developed and piloted in 4 districts	Baseline & Endline Survey, MTR MR: WFP and PMU	
Output 1.1.3: Enable GoL innovations to generate revenue for sustainability	1.1.3.a LMS strategy for innovative revenue generation developed	0	MT: In progress End: 1 strategy fully developed and adopted	Project/ Workshop reports MR: WFP and PMU	• Stakeholders are committed to adopt the LMS strategy, and participate in pilot activities. (A)
	1.1.3.b. # pilot activities implemented for LMS revenue generation	0	MT: 1 End: 3	Project reports MR: WFP and PMU	
Outcome 1.2: Drought anticipatory action scaled out and development of national multi-hazard AA system supported	1.2.a. The number of district specific drought preparedness protocols (DPPs)/Anticipatory Actions Plans (AAPs) developed and implemented	DPPs developed and implemented in 4 districts	MT: DPPs developed or implemented in 7 districts End: DPPs developed or implemented in 10 districts	Baseline and endline survey at HH MR: WFP and PMU	• No major shocks and related emergency responses jeopardize the implementation of technical support activities. (A)
	1.2.b. Proportion of Emergency Preparedness Capacity Index (EPCI) capacity parameters with improved rating	0	End: TBD	Baseline & endline survey. MR: WFP/PMU	
Output 1.2.1: Scale out the anticipatory action for drought system to all 10 districts	1.2.1.a. No. of staff trained (on drought AA) to respond to, and mitigate impacts of, climate-related events (AF 2.1.1.)	38 men 48 women	MT: 90 men, 60 women, 10% youth End: 120 men, 80 women, 10% youth	Project reports MR: WFP and PMU	

	1.2.1.b. # district-level SOPs for drought that define field-level actions developed and applied	4	MT: 7 End: 10	Baseline & endline survey. MR: WFP/PMU	
Output 1.2.2: Support development of gender-responsive national multi-hazard AA system	1.2.2.a. # of national stakeholder workshop on national multi-hazard AA system organised	0	1	Workshop report MR: WFP and PMU	
	1.2.2.b. # studies on financing for sustainable AA system developed	0	End: Study for adoption of multi-hazard AA approved	Study report MR: WFP and PMU	
Outcome 1.3: Communities and vulnerable groups access and use gender-responsive last mile climate services	1.3.a. Number of national policies, strategies, programmes, and other system components enhanced to support the delivery of gender responsive last mile climate services	0	TBD	Baseline and endline survey MR: WFP and PM	• Sub-national structures are committed to strengthening their capacities and receive political support to do this. (A)
	1.3.b. No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) (AF 2.1.2)	0	End: 15 institutions * 10 districts (Institutions in each DDMT - District disaster Management Teams)	Baseline and endline survey MR: WFP and PMU	
Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis	1.3.1.a. # of stakeholders (government. and others) trained on developing LMCS, disaggregated by gender/age	0	150 DDMT members + 400 Agric Extension staff. At least 50% women; at least 10% youth, TBD at Inception[176]	Workshop / training reports MR: WFP and PMU	
	1.3.1.b. # LMCS dissemination channels / platforms developed	0	MT : 3 End : 6	Workshop / training reports MR: WFP and PMU	
	1.3.1.c. Number of smallholder farmers, disaggregated by gender and age, who have enhanced access to localised climate services	0	MT and End TBD at inception Disagg. by W, M, FY, MY; 60% female; 40% Y	MTR and Endline survey MR: WFP and PMU	
Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation					
Outcome/Output	**Indicator**	**Baseline**	**Target**	**Source of Verification**	**Risks and Assumptions**
Outcome 2.1: Strengthened institutional structures and systems at different levels for climate change awareness raising and communication	2.1.a. % of targeted community members (M/F/MY/FY) receiving key messages on climate change, food security gender, nutrition nexus	TBD at inception	MT: 30% overall End: 60% overall. By M/F/MY/FY; 60% female; 40% youth	Mid-term review and End-line Survey MR: WFP and PMU	• Extreme weather conditions and severe recurrent drought during the project implementation might limit adaptive capacities (R). • Communication could be sent to the same people using different platforms (1 person could be reached via SMS, tv, social media, radio etc)
Output 2.1.1: Strengthened national and district level institutional structures and systems for climate change awareness raising and communication	2.1.1.a. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses (AF 3.1.)	25%	50% overall End: 60% overall. By M/F/MY/FY	Project reports, Endline survey MR: WFP and PMU	
	2.1.1.b. # of district CC Action Plans updated and fully operationalised	3 district CC APs	MT: 5 district CC APs End: 10 district CC APs	Project reports/Endline survey MR: WFP and PMU	

[176] It will not be possible to reach 60% women target for this output, as most climate services SHs in GoL are men.

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	2.1.1.c. # people reached through inter-personal SBCC approaches on CC-FS-GEN-NUT nexus (sex- and age-disaggregated)	135,602	MT:400,000 End:1,109,760, disaggregated according to M/F/MY/FY	Project reports, Workshop reports MR: WFP and PMU	
	2.1.1.d. No. of news outlets in local press and media that have covered the topic (AF 3.1)	10	MT:20 End:40	Project reports, Endline Survey MR: WFP and PMU	
	2.1.1.e. Number of people trained and active as climate champions, disaggregated by gender and age	0	MT:50 End:100, By M/F/MY/FY (at least 60% W & 30% Y)	Project reports, Endline Survey MR: WFP and PMU	
Outcome 2.2: Raised awareness of scholars on climate impacts and climate change/food security/gender/nutrition nexus	2.2.a. % of scholars participating in training, coaching, or mentoring who report improved knowledge/skills related to CC-FS-GEN-NUT	0	MT: 50% End: 80%. By girls / boys / women / men	Mid-term review and End-line Survey MR: WFP and PMU	• Government and stakeholder uptake is satisfactory. (A)
Output 2.2.1: Deepen and scale out teacher training and school climate change activities	2.2.1.a. # teachers trained on using updated climate change toolkits with CC-FS-GEN-NUT nexus in schools	600	MT:900 End: 2,000; By M/F/MY/FY(min. 40% W and 20% Y)	Project reports, Endline Survey MR: WFP and PMU	
	2.2.1.b. # non-formal institutions trained on CC-FS-GEN-NUT nexus	0	MT:50 End:150	Project reports, Endline Survey MR: WFP and PMU	
	2.2.1.c. # of schools implementing CSA activities	300	MT: 900 End: 2,000	Project reports, Endline Survey MR: WFP and PMU	
	2.2.1.d. number of primary and secondary school children receiving enhanced teaching on CC-FS-GEN-NUT nexus	0	MT: 40,000 End: 80,000. By age and sex	Project reports, Endline Survey MR: WFP and PMU	
Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy	2.3.a. % of stakeholders reporting increased awareness or improved understanding of key project issues as a result of knowledge products and advocacy efforts.	0	MT: 50%, End: 80%, By women, men, female youth, male youth, female and male children	Project reports, Endline Survey MR: WFP and PMU	
	2.3.b. No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders transfer of knowledge (AF 3.2.2)	5	MT:5 End:10	Project reports, Endline Survey MR: WFP and PMU	
Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy	2.3.1.a. No. of learning, knowledge management and communication products developed and shared	0	MT: 4 End: 8	Project reports, products MR: WFP and PMU	
	2.3.1.b. Policy brief highlighting key lessons learned, including effectiveness of training/sensitisation activities and CC-FS-GEN-NUT nexus	0	MT:1 ET:1	Policy brief MR: WFP and PMU	

	2.3.1.c. Action research reports to generate evidence for policy advocacy on project approach, including CC-FS-GEN-NUT nexus	0	MT:6 End:10	Action research reports MR: WFP and PMU	
Component 3: Building resilience through community-based adaptation measures to strengthen food systems					
Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change impacts	3.1.a. % targeted communities where there is evidence of improved capacity to manage climate shocks and risks	0	50% (MT) and at least 75% (ET) of targeted communities to report improved capacity to prepare for and manage climate shocks and risks.	Project reports, Endline survey MR: WFP and PMU	Community members are sufficiently interested in and willing to take part in local adaptation planning process (A)
	3.1.b. Livelihood Coping Strategies for food security	TBD within 3 months; % HHs use stress, crisis & emergency coping strategies	End: Less than 20% HHs using stress, crisis and emergency coping strategies even during drought periods. By HH head gender, age and sub-group	Household surveys, Project reports, Endline survey MR: WFP and PMU	
	3.1.c. Percentage of targeted population with sustained climate-resilient alternative livelihoods (AF 6.2.)	0	MT: 30%, by gender, age and sub-group End: 60%, by gender, age and sub-group	Project reports, Endline survey MR: WFP and PMU	
Output 3.1.1: Participatory community adaptation plans developed	3.1.1.a. # community-based resilience and adaptation plans in targeted areas	21	MT: 18 End: 18	Project reports MR: WFP and PMU	Communities may consider asset creation activities as social safety net programme and not take much interest in its continuity beyond the project. (R)
	3.1.1.b. % women and youth reporting higher levels of meaningful participation in community planning	0	MT: TBD at inception End: TBD at inception	Endline survey MR: WFP and PMU	
	3.1.1.c. climate-informed tree suitability study (high value, afforestation, agroforestry)	0	MT: 1 End: 1	Study MR: WFP and PMU	
Output 3.1.2: Community and HH-level nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation	3.1.2.a. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) (AF 5.1.)	39	MT: 80 End:100	Household surveys, Project reports, Endline survey MR: WFP and PMU	
	3.1.2.b. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies (AF 6.1.1.)	Community: 151 Household: 1000	MT: Community: 250; HHs: 2,500 (no. of assets) End: Community: 300; HHs: 5,000 no. of assets	Household surveys, Project reports, Endline survey MR: WFP and PMU	
	3.1.2.c. # of HHs (M/F headed) with natural and physical livelihood assets created and improved	11,000	MT: 2,500 HHs End: 5,000 HH, by age and sex of HH head	Household surveys, Project reports, Endline survey. MR: WFP and PMU	
	3.1.2.d. area of land rehabilitated and with improved vegetation cover in ha	62,411	MT: 75,000 End: 100,000		
	3.1.2.e. # of extension officers receiving recurring training on CSA	0	MT: 3,000 [936 W, 864 M, 624 FY, 576 MY] End: 4,000 (1,248 W, 1,152M, 832 FY, 768 MY)	Household surveys, Project reports, Endline survey. MR: WFP and PMU	

	3.1.2.f. Number of smallholder farmers, disaggregated by gender and age, who report benefits from enhanced gender-responsive climate-resilient agricultural extension	1,000 [# W/M/FY/MY/ TBD at inception]	MT: TBD End: 5,600 [2,848 W, 1,152 M, 832 FY, 768 MY]	Household surveys, Project reports, Endline survey MR: WFP and PMU	
Output 3.1.3: Entrepreneurial opportunities promoted and market linkages established for climate-resilient value chains	3.1.3.a. # smallholder farmers supported/trained on reducing post-harvest losses, disaggregated by gender and age	1,000	MT: 3,000 [936 W, 864 M, FY 624, MY 576] End: 4,000 [W: 2848, M: 1152, FY: 832, MY: 768]	Project reports, Endline survey MR: WFP and PMU	Communities prioritize the diversification and strengthening of their livelihood bases in their adaptation plan (A).
	3.1.3.b. # Climate-resilient value chains supported	2	MT: 3 End: 4	Project reports MR: WFP and PMU	
	3.1.3.c. # women, youth, herders supported to diversify livelihoods through IGAs	338 women and 34 youth	MT: 1,000 [W: 500, Y: 400, herders: 100] End: 1,500 [W: 750, Y: 600, herders: 150]	Project reports, Endline survey MR: WFP and PMU	
	3.1.3.d. Number of farmers (W, M, F/M youth) reporting increased income as a result of value chain and marketing support	0	MT: 2,000 [1,000 W, 200 M, 400 FY, 400 MY] End: 3,000 [1,500 W, 300 M, 600 FY, 600 MY]	Project reports, Endline survey MR: WFP and PMU	
	3.1.3.e. Enhanced e-marketing app for gender-responsive digitalised dissemination	0	1	Project reports, app MR: WFP and PMU	
	3.1.3.f. # and type of post-harvest inputs, equipment and infrastructures provided	690 (tarpaulins, storage pallets, weighing scales, solar dryers)	MT: 2,000 ET: 3,000	Project reports, Endline survey MR: WFP and PMU	
	3.1.3.g. Number of smallholder farmer aggregation systems supported	8	16	Project reports, Endline survey MR: WFP and PMU	
	3.1.3.h. Total membership of supported smallholder farmer aggregation systems	400	800	Project reports, Endline survey MR: WFP and PMU	
Outcome 3.2: Enhanced institutional systems and policy advocacy for climate adaptive social protection	Number of national policies, strategies, programmes, and system components enhanced to integrate climate adaptation into social protection systems	0	1	Project reports, strategy MR: WFP and PMU	
Output 3.2.1: Policy advocacy and systems development to support climate adaptive social protection	3.2.a. Climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT[177]	0	1	Project reports, strategy MR: WFP and PMU	

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Table 124. Adaptation Fund Core Impact Indicators

[177] Corresponds with AF indicator 7.2. 'No. of targeted development strategies with incorporated climate change priorities enforced'

The total anticipated direct beneficiaries will be 186,492, composed of 115,200 CBT beneficiaries (based on 28,800 direct CBT participants with an average HH size of 4), plus 71,292 direct beneficiaries in Category B. Note that the figures for youth are based on the Lesotho definition of this age category (18 – 35), as this is the information available in the demographic reports. The project will track and report on the AF categorization of youth as 18-24. During the inception period, the baseline and targets will be revisited and revised if necessary, in full consideration of the local conditions as well as the AF's prescribed core indicator methodology ; the revised table will be reported in the first PPR.

	Baseline	Target at project approval	Source of verification	Responsibility for monitoring
Adaptation Fund Core Impact Indicator "Number of Beneficiaries"				
Direct CBT beneficiaries (Category A)	0	28,800	Project surveys and reports	WFP and PMU
Female direct CBT beneficiaries	0	17,280	Project surveys and reports	WFP and PMU
Youth direct CBT beneficiaries	0	11,520	Project surveys and reports	WFP and PMU
Direct Category B beneficiaries	0	71,292	Project surveys and reports	WFP and PMU
Female direct Category B beneficiaries	0	42,775	Project surveys and reports	WFP and PMU
Youth direct Category B beneficiaries	0	28,517	Project surveys and reports	WFP and PMU
Total direct beneficiaries supported by project (Categories A + B)	0	186,492	Latest census of project areas	WFP and PMU
Total female direct beneficiaries	0	60,055	Project surveys and reports	WFP and PMU
Total youth direct beneficiaries	0	40,037	Project surveys and reports	WFP and PMU
Indirect beneficiaries supported by the project (Categories C + D)	0	1,253,468	Latest census of project areas	WFP and PMU
Female indirect beneficiaries	0	651,803	Latest census of project areas	WFP and PMU
Youth indirect beneficiaries	0	300,832	Latest census of project areas	WFP and PMU
Adaptation Fund Core Impact Indicator "Assets Produced, Developed, Improved, or Strengthened"				
Health and Social Infrastructure (developed/improved): Increased capacity of extension services, measured as. # of extension officers receiving recurring training on CSA (indicator 3.1.2.e above)	0	4,000 (1,248 W, 1,152M, 832 FY, 768 MY)	Project surveys and reports	WFP and PMU
Physical asset (produced/improved/strengthened): No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies (reported according to type, e.g. water harvesting systems, keyhole gardens, sand dams, structures to reduce PHL, etc.)	Community: 151 Household: 1000	Community: 300 Household: 5,000 (assets)	Project surveys and reports	WFP and PMU
Adaptation Fund Core Impact Indicator "Natural Assets Protected or Rehabilitated"				
- Hectares of degraded land rehabilitated	62,411	100,000	Project surveys and reports	WFP and PMU
- Hectares of wetlands protected	15	50	Project surveys and reports	WFP and PMU

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III.F. Alignment with the Results Framework of the Adaptation Fund

Project Objective(s)[178]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Expected Results	Grant Amt (USD)
Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action, and gender-responsive last mile climate services	1.1.a. Climate services score[179] (unit of analysis is percentage of targeted population) 1.1.e. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis (AF 1.1.) 1.2.b. Proportion of Emergency Preparedness Capacity Index (EPCI) capacity parameters with improved rating 1.1.2.b. IBF system developed and piloted in districts (corresponds to AF Output 8)	Outcome 1: Reduced exposure to climate-related hazards and threats Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies	1.1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis 2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased 8. Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level	1.1.a. TBD after baseline 1.1.e 90% of stakeholders receiving timely threat and hazard information 1.2.d. End: TBD at Inception 1.1.2.b. End: IBF system developed and piloted in 4 districts	~~2,332,754~~98 9,443 (1.1.1 + 1.3.1) 704,725 (1.2.1 + 1.2.2) 638,586 (1.1.2 + 1.1.3)
Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation	2.1.1.a. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses (AF 3.1.)	Outcome 3. Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	2.1.1.a. End: 60% overall; disaggregated according to M/F/MY/FY	**1,522,560**
Component 3: Building resilience through community-based adaptation measures to strengthen food systems	3.1.2.d. area of land rehabilitated and with improved vegetation cover in ha 3.1.c. Percentage of targeted population with sustained climate-resilient alternative livelihoods (AF 6.2.) 3.2.a. Climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT[180]	Outcome 5. Increased ecosystem resilience in response to climate change and variability - induced stress Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas Outcome 7: Improved policies and regulations that promote and enforce resilience measures	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods 7. Climate change priorities are integrated into national development strategy	3.1.2.d. End: 100,000 hectares 3.1.c. End: 60%, by gender, age and sub-group 3.2.a. 1 land restoration strategy integrating CC-FS-GEN-NUT	~~4,485,699~~3,438,721 (3.1.1 + 3.1.2) 752,339 (3.1.3) 294,639 (3.2.1)
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Expected Results**	**Grant Amt (USD)**
Outcome 1.1 Strengthened institutional capacity and systems to enhance accuracy of sub-seasonal to seasonal climate forecast	1.3.1.c. Number of smallholder farmers, disaggregated by gender and age, who have enhanced access to localised climate services 1.1.2.b. IBF system developed and piloted in districts	Output 1.2: Targeted population groups covered by adequate risk reduction systems Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated	1.2.1. Percentage of target population covered by adequate risk-reduction systems 8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	TBD at inception; 60% women, 40% youth 1.1.2.b. End: IBF system developed and piloted in 4 districts	~~1,181,181~~54 2,595 (1.1.1) 638,586 (1.1.2 + 1.1.3)
Outcome 1.2 Drought anticipatory action scaled out and development of national multi-hazard AA system supported	1.2.1.a. No. of staff trained (on AA for drought) to respond to, and mitigate impacts of, climate-related events (by gender) (AF 2.1.1.)	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender)	1.2.1.a. End: 120 men, 80 women, 10% youth	**704,725**
Outcome 1.3 Communities and vulnerable groups access and use gender-responsive last mile climate services	1.3.b. No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) (AF 2.1.2)	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	1.3.b. End: 15 institutions * 10 districts	**446,848**
Outcome 2.1 Strengthened institutional structures and systems at different levels for climate change	2.1.1.d. No. of news outlets in the local press and media that have covered the topic (AF 3.1)	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1 No. of news outlets in the local press and media that have covered the topic	2.1.1.d. End: 40	**646,735**

[178] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply
[179] This WFP Corporate Results Framework outcome indicator measures the extent to which communities are able to manage climatic shocks and risks through information and practices, including LMCS.
[180] Corresponds with AF indicator 7.2. 'No. of targeted development strategies with incorporated climate change priorities enforced'

awareness raising and communication					
Outcome 2.2: Raised awareness of scholars on climate impacts and climate change / food security / gender / nutrition nexus	2.2.a. % of scholars participating in training, coaching, or mentoring who report improved knowledge/skills related to CC-FS-GEN-NUT	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1 No. of news outlets in the local press and media that have covered the topic	2.2.a. End: 80% By girls / boys / women / men	**376,295**
Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy	2.3.b. No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders transfer of knowledge (AF 3.2.2)	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders transfer of knowledge	2.3.b. End:10	**499,530**
Outcome 3.1 Increased adaptive capacity of communities and households to respond to climate change impacts	3.1.2.a. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) (AF 5.1.) 3.1.2.b. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies (AF 6.1.1.)	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) 6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	3.1.2.a. End:100 3.1.2.b. End: Community: 300 HH: 5,000 By HH-head age and sex	~~4,191,060~~3,438,721 (3.1.1 + 3.1.2) 752,339 (3.1.3)
Outcome 3.2: Enhanced institutional systems and policy advocacy for climate adaptive social protection	3.2. Number of national policies, strategies, programmes, and system components enhanced to integrate climate adaptation into social protection systems	Output 7: Improved integration of climate-resilience strategies into country development plans	7.2. No. of targeted development strategies with incorporated climate change priorities enforced	3.2.: 1	**294,639**

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III.G. Detailed budget

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Output	Cost Category	Budget Notes	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Outcome 1.1: Strengthen institutional capacity and systems to enhance accuracy of sub-seasonal to seasonal climate forecast								
Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature								
1.1.1.a	Procurement	Procurement of High-Performance Computer (HPC) hardware, software and licenses	200,000	2,500	2,500	2,500	2,500	**210,000**
1.1.1.b	Service contract/FLA	Trainings to Lesotho Meteorological Services (LMS) 12 staff on use and management of HPC	5,450	5,450	5,450	5,450	5,450	**27,250**
1.1.1.c	Procurement	Procurement of 2 agromet and 2 climate stations including 4 rainfall stations	120,000					**120,000**
1.1.1.d	Service contract/FLA	Trainings on AWS maintenance aligned to WMO standards	5,450	5,450	5,450	5,450	5,450	**27,250**
1.1.1.e and 1.1.1.f	Service contract/FLA	Engage academic institutions to build capacities of LMS /DMA staff (26 trained) on WRF, S2S, Map tools	75,000	-	-	-	-	**75,000**
	Travel Costs	Project staff and Partners travelling costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Training & workshops	Seasonal Community educational meetings / public gatherings	1,499	1,499	1,499	1,499	1,499	**7,495**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert – Climate Change Awareness Raising and Education and M&E Officer.	9,838	9,838	9,838	9,838	9,838	**49,190**

Total - Output: 1.1.1			**422,519**	**30,019**	**30,019**	**30,019**	**30,019**	**542,595**
Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services								
1.1.2a	International Consultant	Engage international consultant / institution to map relevant stakeholders towards IBF	40,438	40,438	-	-	-	**80,875**
1.1.2.b	Training & workshops	Sensitization of relevant line ministries and partners on use of IBF approach/system (200 trained:10 percent youth)	6,949	6,949	6,949	6,949	6,949	**34,745**
1.1.2.c	Data Collection	Engage local practitioners on data collection to assess communication needs	18,691	-	-	-		**18,691**
1.1.2.d	Training & workshops	Information gathering for generation of IBF risk maps and coordination IBF activities	2,550	2,550	2,550	2,550	2,550	**12,750**
1.1.2.e	Training & workshops	Training of 12 LMS, 40 DMA and other relevant line ministries to develop IBF advisories/support products	5,450	5,450	5,450	5,450	5,450	**27,250**
1.1.2.f	Training & workshops	Pilot the IBF system in the 4 project districts	-	31,550	-	-		**31,550**
	Travel Costs	Project staff and Partners travelling costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Services and Anticipatory Action, M&E Officer, and other project staff	15,125	15,125	15,125	15,125	15,125	**75,625**
	GoL staff time	Salary contribution for GoL Extension staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National Gender and Nutrition Consultant, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 1.1.2			**107,851**	**120,710**	**48,722**	**48,722**	**48,722**	**374,726**
Output 1.1.3: Enable GoL innovations to generate revenue for sustainability								
1.1.3.a	Service contract/FLA	Engage local consultant to develop LMS innovative sustainable financing strategy	45,000	-				**45,000**
1.1.3.b & c	Service contract/FLA	Pilot the Run for Climate Change innovation and develop joined up approach for CC financing	8,500	8,500	8,500	8,500	8,500	**42,500**
	Travel Costs	Project staff and Partners travelling costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Training & workshops	Train LMS & DMA on innovative financing strategy	1,499	1,499	1,499	1,499	1,499	**7,495**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Services and Anticipatory Action, M&E Officer, and other Project Staff	15,125	15,125	15,125	15,125	15,125	**75,625**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 1.1.3			**88,772**	**43,772**	**43,772**	**43,772**	**43,772**	**263,860**
Outcome 1.2: Drought anticipatory action scaled out and development of national multi-hazard AA system supported								
		Output 1.2.1: Scale out the anticipatory action for drought system to all 10 districts						
1.2.1.a	Training & workshops	Annual meetings/workshops for LMS, DMA, line ministries to develop drought thresholds & SOPs in 6 districts	30,949	30,949	30,949	30,949	30,949	**154,745**

1.2.1.b	Training & workshops	Conduct annual refresher AA trainings for national/district SHs	5,450	5,450	5,450	5,450	5,450	**27,250**
	Travel Costs	Project staff/Partners travel costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Service and Anticipatory Action, M&E Officer, and other Project Staff	15,125	15,125	15,125	15,125	15,125	**75,625**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 1.2.1			**70,172**	**70,172**	**70,172**	**70,172**	**70,172**	**350,860**
Output 1.2.2: Support development of gender-responsive national multi-hazard AA system								
1.2.2.a	Service contract / FLA	One national workshop to consolidate & develop roadmap for national multihazard AA system; international service provider	80,000					**80,000**
1.2.2.b	Service contract/FLA	Local consultant maps & advises on sustainable AA funding system	30,000	-				**30,000**
	Travel Costs	Project staff/Partners travel costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Training & workshops	Technical training DMA (40 staff) & 50 SHs on Multihazard AA	15,000	15,000	15,000	15,000	15,000	**75,000**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Service and Anticipatory Action, M&E Officer and other Project Staff	15,125	15,125	15,125	15,125	15,125	**75,625**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 1.2.2			**158,773**	**48,773**	**48,773**	**48,773**	**48,773**	**353,865**
Outcome 1.3: Communities and vulnerable groups access and use gender-responsive last mile climate services								
Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis								
1.3.1.a	Contract / LTA's	TA by International service provider to LMS, DMA & MAFSN on LMCS (150 DDMT members & 400 Agric Ext. staff; 50% women; 10% youth)		75,000				**75,000**
1.3.1.b	Contract/LTA	Part-time 6 months progr. to LMS observers by NUL on weather & seasonal forecasting	15,000	15,000	15,000	15,000	15,000	**75,000**
1.3.1.c	Procurement	Gender responsive advocacy materials developed & disseminated i.e. public gathering, meetings	15,500	-	15,500	15,500	-	**46,500**
1.3.1.d	Training & workshops	Workshops with relevant groups to develop corps of LMCS disseminators	23,161	29,161	29,161	-	-	**81,483**
	Travel Costs	Project staff/Partners travel costs	3,697	3,697	3,697	3,697	3,697	**18,485**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**

	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Service and Anticipatory Action, M&E Officer and other Project Staff	15,125	15,125	15,125	15,125	15,125	**75,625**
	GoL staff time	Salary contribution for GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 1.3.1			**87,434**	**152,934**	**93,434**	**64,273**	**48,773**	**446,848**
Total Component 1			**935,521**	**466,380**	**334,892**	**305,731**	**290,231**	**2,332,754**
Outcome 2.1: Strengthened institutional structures and systems at different levels for climate change awareness raising and communication								
Output 2.1.1: Strengthened national and district level institutional structures and systems for climate change awareness raising and communication								
2.1.1.a	Service contract/FLA	National consultant to update the National Climate Change Communication Strategy (NCCCS)	35,000	35,000				**70,000**
2.1.1.b	Training & workshops	Quarterly workshops, meetings and seminars with relevant stakeholders to execute NCCCS	15,450	15,450	-	-	-	**30,900**
	Training & workshops	Training 12 LMS staff, 40 NCCC & 30 staff from line ministries on operationalizing NCCCS	-	10,450	10,450	10,450	-	**31,350**
2.1.1.c	Training & workshops	Workshops for 1,750 people (120 members of parliament, 22 chiefs, 1,508 councillors, 100 from NGOS and Faithbased organisations) on NCCCS and its implementation	20,000	20,000	-	-	-	**40,000**
2.1.1.d	Training & workshops	Quarterly meetings, advertisements in 40 national news outlets to update district ccc action plans & track implementation	18,250	18,250	18,250	18,250	18,250	**91,250**
2.1.1.e	Training & workshops	Refresher trainings (100 people; 60% women; 10% youth) for district implementation SHs on CC/FS/GEN/NUT nexus	5,450	5,450	5,450	5,450	5,450	**27,250**
2.1.1.f	Training & workshops	Meetings to establish district climate action gender working group	5,450	5,450	-	-	-	**10,900**
2.1.1.g and h	Service contract/FLA	Training for 100 CC champions from different socio-economic groups	10,000	10,000	10,000	10,000	10,000	**50,000**
2.1.1.i	Training & workshops	Training 40 media practitioners on CC/FS/GEN/NUT and establish partnerships with media institutions	20,850	-	20,850	-	20,850	**62,550**
	Travel Costs	Project staff/Partners travel costs	7,385	7,385	7,385	7,385	7,385	**36,925**
	Training & workshops	Trainings/workshops to implementing partners to track NCCCS progress	2,994	2,994	2,994	2,994	2,994	**14,970**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Change Awareness Raising and Education, M&E Officer and other Project staff	21,177	21,177	21,177	21,177	21,177	**105,885**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by	5,144	5,144	5,144	5,144	5,144	**25,720**

		WFP CO Gender & Nutrition Officer						
Total - Output: 2.1.1			**176,957**	**166,557**	**111,507**	**90,657**	**101,057**	**646,735**
Outcome 2.2: Raised awareness of scholars and inmates on climate impacts and climate change / food security / gender / nutrition nexus								
Output 2.2.1: Deepen and scale out teacher training and school climate change activities								
2.2.1.a	Procurement	Design and printing of CC/FS/GEN/NUT materials	10,000	2,550	2,550	2,550	2,550	**20,200**
2.2.1.b	Training & workshops	Workshops and training of formal & non-formal institutions staff on climate change impacts (150 participants)	10,450	10,450	10,450	10,450	10,450	**52,250**
2.2.1.c	Training & workshops	Conduct national & district roadshows on CC/FS/GEN/NUT nexus (2,000 participants)	10,000	10,550	11,130	11,742	12,388	**55,810**
2.2.1.d	Training & workshops	Provide training/inputs to 80,000 learners in CC & nutrition clubs to implement adaptation activities	5,500	2,500	2,500	2,500	2,500	**15,500**
	Travel Costs	Project staff/Partners travel costs	7,385	7,385	7,385	7,385	7,385	**36,925**
	Training & workshops	Trainings and workshops to implementing partners	2,994	2,994	2,994	2,994	2,994	**14,970**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Climate Change Awareness Raising and Education, M&E Officer and (other Project staff	21,177	21,177	21,177	21,177	21,177	**105,885**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender & nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 2.2.1			**82,457**	**72,557**	**73,137**	**73,749**	**74,395**	**376,295**
Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy								
Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy								
2.3.1.a	Service contract/FLA	Develop knowledge management strategy & system to improve evidence generation	15,550	15,550	-	-	-	**31,100**
2.3.1. b	Training & workshops	Develop structured training strategy for PMU and GoL staff in the EE	8,520	-	8,520	-	-	**17,040**
2.3.1.c, 2.3.1d,2.3.1e, 2.3.1.f	Study	Action research by local researchers to assist PMU to develop feedback loop, generate evidence, case studies, policy briefs, organize seminars	70,000	20,000	20,000	20,000	20,000	**150,000**
	Travel Costs	Project staff/Partners travel costs	7,385	7,385	7,385	7,385	7,385	**36,925**
	Training & workshops	Trainings and workshops to implementing partners	2,994	2,994	2,994	2,994	2,994	**14,970**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Technical Expert on Knowledge Management and Project Communication, M&E Officer and other Project staff	34,948	34,948	34,948	34,948	34,948	**174,740**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**

	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 2.3.1			**154,348**	**95,828**	**88,798**	**80,278**	**80,278**	**499,530**
Total Component 2			**413,762**	**334,942**	**273,442**	**244,684**	**255,730**	**1,522,560**
Outcome 3.1: Increased adaptive capacity of communities and households to respond to climate change impacts								
Output 3.1.1: Participatory community adaptation plans developed								
3.1.1.a	Training & workshops	TOT for GoL staff on CBPP in 4 districts & key Ministries	2,450	2,450	2,450	2,450	2,450	**12,250**
and	Training & workshops	Conduct CBPP & develop/revise 18 community action plans (CAPs) for farm & off farm adaptation activities	2,450	2,450	2,450	2,450	2,450	**12,250**
3.1.1.e	Training & workshops	Technical workshop with MAFSN and MEF to develop a technical implementation matrix	2,450	2,450	2,450	2,450	2,450	**12,250**
3.1.1 b	Training & workshops	Workshops for district authorities (particularly in Thaba Tseka), herders, & youth on NRM, and awards for best-managed resource	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.1.c	Training & workshops	Meetings and workshops with GoL national and district planning unit staff on integrating ICA, SLP and CBPP into district planning.	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.1.d	Training & workshops	Conduct Seasonal Livelihood Programming to overlay hazards and vulnerability context for implementation sites	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.1.f	Training & workshops	Advocacy meetings & workshops on integrated CAPs and mobilize private sector support	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.1.g	Service contract/FLA	Climate-informed tree suitability study (agroforestry, afforestation, fruit trees)	35,000	-	-	-	-	**35,000**
3.1.1.i	Training & workshops	Quarterly Workshops, meetings, field visits for ESS & ESMP implementation	5,450	-	5,450	-	5,450	**16,350**
3.1.1.h	Site Survey	GIS mapping of asset creation sites	2,248	2,248	2,248	2,248	2,248	**11,240**
	Travel Costs	Project staff/Partners travel costs	5,544	5,544	5,544	5,544	5,544	**27,720**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Field Coordination Officer, Technical Expert on Smallholder Agriculture and Market Support, M&E Officer, and other Project staff	25,870	25,870	25,870	25,870	25,870	**129,350**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 3.1.1			**118,213**	**77,763**	**83,213**	**77,763**	**83,213**	**440,165**
Output 3.1.2: Community and individual nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation								
3.1.2.a	Training & workshops	Develop project action plan to implement farm & off-farm adaptation activities	2,540	2,540	2,540	-	-	**7,620**
3.1.2.b	Study	Formative study, design & implement recommendations on capacity development for 10 MEF & 10 MAFSN extension staff	50,000	50,000	40,000	30,000	30,000	**200,000**
3.1.2.c	Cash-based Transfer	Support 28,800 participants in community asset creation; engage financial service	529,200	529,200	529,200	529,200	-	**2,116,800**

		providers (FSP) & implement beneficiary registration system (SCOPE)						
3.1.2.d	Training & workshops	Trainings for 100,000 community members in project sites on appropriate adaptation measures	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.2.e	Service contract/FLA	Contract service providers to upgrade 1 national seedbank & construct 1 district seedbank	-	48,000	-	-	-	**48,000**
3.1.2.f	Procurement	Procure tools & equipment for 5,000 participants in adaptation asset creation sub-projects	100,000	120,000	86,285	-	-	**306,285**
3.1.2.g	Service contract/FLA	Competitions, etc. (e.g. celebrity chef) with socio-economic groups to promote climate resilient & nutritious production	15,000	12,500	12,500	-	-	**40,000**
3.1.2.h	Training & workshops	Community members (18 foremen), 20 extension staff undertake & document peer-to-peer exchange programme	5,450	5,450	5,450	5,450	5,450	**27,250**
3.1.2.i	Training & workshops	Partnerships with CBOs, NGOs, vocational institutions to integrate WASH into asset creation activities	1,512	1,512	1,512	1,512	1,512	**7,560**
	Travel Costs	Project staff/Partners travel costs	2,218	2,218	2,218	2,218	2,218	**11,090**
	Training & workshops	Trainings/workshops to implementing partners (20 Extension leads) on climate-smart approaches and technologies	899	899	899	899		**3,596**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000		**4,000**
	Project Staff	Field Coordination Officer, Technical Expert on Smallholder Agriculture and Market Support, M&E Officer, and other Project staff	25,870	25,870	25,870	25,870	25,870	**129,350**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 3.1.2			**753,090**	**818,590**	**726,875**	**615,550**	**84,451**	**2,998,556**
Output 3.1.3: Entrepreneurial opportunities promoted, and market linkages established for climate-resilient value chains								
3.1.3.a	Study and policy framework	Study tours to other countries implementing PHL; training of 4000 households/smallholder farmers; construct/refurbish 3000 small storage facilities	30,000	-	30,000	-	30,000	**90,000**
3.1.3.b	Procurement	Provide business management & technical skills for IGAs targeting women, youth, men; Procure materials for IGAs	25,000	25,000	25,000	25,000	25,000	**125,000**
3.1.3.c	Contract	Construct 8 satellite aggregation facilities (max. 8 x 4 m); Provide equipment e.g. tables (1.5 x 0.5 meters; storage pallets; hermetic bags; promote use of digital technology for market linkage	50,000	50,000	50,000	50,000	-	**200,000**
3.1.3.d	Training & workshops	Partner with Postbank, LNDC & financial service providers, train farm/off-farm enterprise owners on financial literacy; 600 individuals trained/year (150/district).	2,500	2,500	2,500	2,500	2,500	**12,500**

3.1.3.e	Training & workshops	Collaborate with NUL Innovation Hub, conduct training workshops for MEF staff to develop pathways for turning invasive species into livelihood opportunity	9,083	9,083	9,083	-	-	**27,249**
3.1.3.f	Contract	Engage service provider to scale-up e-marketing platform & ntegrate agromet advisories & nutrition messages	15,450	17,450	-	17,450	-	**50,350**
3.1.3.g	Contract	Service provider to conduct training workshops on branding and advocacy on Basotho Natural brand	-	10,920	-	-	-	**10,920**
	Travel Costs	Project staff/Partners travel costs	5,544	5,544	5,544	5,544	5,544	**27,720**
	Training & workshops	Trainings and workshops to implementing partners	899	899	899	899	899	**4,495**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Field Coordination Officer, Technical Expert on Smallholder Agriculture and Market Support, M&E Officer, and other Project staff	25,870	25,870	25,870	25,870	25,870	**129,350**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 3.1.3			**179,297**	**162,217**	**163,847**	**142,214**	**104,764**	**752,339**
Outcome 3.2: Enhanced institutional systems and policy advocacy for climate adaptive social protection								
Output 3.2.1: Policy advocacy and systems development to support climate adaptive social protection								
3.2.1.a	Training Workshops	Advocacy workshops &meetings with secondary SHs to develop climate adaptive land restoration strategy		35,522				**35,522**
3.2.1.b and 3.2.1.c	Training Workshops	Engage service provider to support MEF & Ministry of Social Development to develop M&E strategy Operationalize M&E system to monitor and report progress and impact of the community activities	43,922	-				**43,922**
	Travel Costs	Project staff/Partners travel costs	2,218	2,218	2,218	2,218	2,218	**11,090**
	Miscellaneous	Vehicle running cost for field staff, and other consumables	585	585	585	585	585	**2,925**
	Service contract/FLA	Operating Community Feedback Mechanism (CFM)	1,000	1,000	1,000	1,000	1,000	**5,000**
	Project Staff	Field Coordination Officer, Technical Expert on Smallholder Agriculture and Market Support, M&E Officer, and other Project staff	25,870	25,870	25,870	25,870	25,870	**129,350**
	GoL staff time	Salary contribution for the GoL Extension Staff	8,222	8,222	8,222	8,222	8,222	**41,110**
	Local consultant / staff costs	Short-term National gender and nutrition expert, TA provided by WFP CO Gender & Nutrition Officer	5,144	5,144	5,144	5,144	5,144	**25,720**
Total - Output: 3.2.1			**86,961**	**78,561**	**43,039**	**43,039**	**43,039**	**294,639**
Total Component 3			**1,137,561**	**1,137,131**	**1,016,974**	**878,566**	**315,467**	**4,485,699**
		National Project coordinator	61,163	61,163	61,163	61,163	61,163	**305,815**
		Finance Officer - Parttime	13,771	13,771	13,771	13,771	13,771	**68,855**
		Procurement Officer	27,542	27,542	27,542	27,542	27,542	**137,710**
		Administration Assistant	19,011	19,011	19,011	19,011	19,011	**95,055**

		Inception workshop and report writing	14,395					**14,395**
		Engage private Auditing Firm to undertake project's specific auditing and reporting					20,000	**20,000**
	Project Execution Costs	Office equipment and materials for Project Management Unit (PMU) staff, including IT Per Capita, other IT recurring costs including quarterly Project Steering Committee meetings (minutes, presentations & action plans)	10,321	10,321	10,321	10,321	10,321	**51,605**
		Admin car and related running costs for PMU staff	81,513	2,657	2,657	2,657	2,657	**92,141**
		M&E plan baseline studies and reporting	35,000	10,000	10,000	10,000	25,000	**90,000**
Total Project Execution Cost _ 9.5%			**262,716**	**144,465**	**144,465**	**144,465**	**179,465**	**875,576**
Total Project Costs			**2,749,560**	**2,082,918**	**1,769,773**	**1,573,446**	**1,040,893**	**9,216,589**
Monitoring and Evaluation								
	Consultancy	Mid-term Review Consultancy in the 3rd year of project implementation	-	-	73,082	-		**73,082**
		Final Evaluation Consultancy in the 5th year	-	-	-	100,000	-	**100,000**
Subtotal Monitoring and Evaluation			**-**	**-**	**73,082**	**100,000**	**-**	**173,082**
Indirect Support Costs								
WFP HQ Fee (6.5%), Indirect Support Costs (ISC)	Finance and budget support, project supervision, information, and telecommunications support, and monitoring and evaluation activities		178,721	135,390	119,786	108,774	67,658	**610,329**
WFP HQ Fee (6.5%), Indirect Support Costs Subtotal			**178,721**	**135,390**	**119,786**	**108,774**	**67,658**	**610,329**
MIE Total _8.5%			**178,721**	**135,390**	**192,868**	**208,774**	**67,658**	**783,411**
TOTAL FINANCING REQUEST			**2,928,281**	**2,218,307**	**1,962,641**	**1,782,220**	**1,108,551**	**10,000,000**

III.H. Disbursement schedule

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	Upon signature of Agreement	One Year after Project Start (Y2)	Year 3	Year 4	Year 5	Total
Scheduled date	May-25	May-26	May-27	May-28	May-29	
Project Funds	2,749,560	2,082,918	1,769,773	1,573,446	1,040,893	9,216,589
Implementing Entity Fees	178,721	135,390	192,868	208,774	67,658	783,411
Total	**2,928,281**	**2,218,307**	**1,962,641**	**1,782,220**	**1,108,551**	**10,000,000**

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2]

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Mokoena France, Director Lesotho Meterological Services (a.i), Ministry of Environment and Forestry	Date*: October 21, 2024*

LESOTHO METEOROLOGICAL SERVICES
MINISTRY OF ENVIRONMENT AND FORESTRY
P.O Box 14515, Maseru 100, Lesotho
Email: mokoena.france@gov.ls Tel: +266 22 317250
Ref: MEF/LMS/IACoV:01 03.10.2024

Adaptation Fund Board Secretariat
c/o Global Environment Facility
Mail stop: N7-700
1818 H Street NW
Washington DC 20433 USA.

Dear Madam / Sir,

Re: No objection for the project titled: "Improving Adaptive Capacity of Vulnerable and food-insecure populations in Lesotho (IACoV)"PHASE II

In my capacity as Adaptation Fund Focal Point for Lesotho, I confirm that the referred IACoV Phase II project proposal is: (a) in accordance with my Government's national priorities, strategies, plans and our commitments to the United Nations Framework Convention on Climate Change; (b) was discussed with relevant stakeholders; (c) is in accordance with the Adaptation Fund's environmental and social safeguards and (d) is in conformity with relevant national laws and regulations.

I am pleased to endorse that the preparation of the above-mentioned project proposal is done with the support of WFP and I hereby communicate our no-objection to the project. I also confirm that our national processes for ascertaining no-objection to the project have been duly followed.

The total financing from the Adaptation Fund being requested for this project is USD 10,000,000 inclusive of Implementing Entity fees for project management services.

I thank you.

Yours Sincere

Mokoena FRANCE (Mr)
UNFCCC and Adaptation Fund Focal Point for Lesotho

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address

[6] Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (……list here…..) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

Name & Signature Implementing Entity Coordinator Elliot Vhurumuku, WFP Representative and Country Director	
Date: *(Month, Day, Year)* *October,21,2024*	Tel. and email: Elliot.vhurumuku@wfp.org +26658800035, +26622213300
Project Contact Person: Emily Doe	
Tel. And Email:+26658851260.+26622213300 emily.doe@wfp.org	

Annex 1: Recommendations of MTR, status of response, and phase II design responses

Key recommendation	Extent to which this has been addressed in phase I	How this will be addressed / taken forward in phase II
1. The project's results framework should be revisited to identify achievable targets on output 1.2.1 on pending studies and operationalization of their findings and output 3.1.3 on the value chains, fortification and market access activities in the remaining period of the project: carry out rapid survey to identify gaps and take actions.	Under Component 1: (a) the pending IKS was submitted in March 2024. The consultant is incorporating comments from WFP HQ and Regional Bureau Johannesburg (RBJ) and will submit the final report on the 19 August 2024; (b) Regarding the benefit of acting early study/assessment, Lesotho CO supported by RBJ has undertaken the after action review on AA implementation in Lesotho and the findings of this exercise addressed what was envisaged by the study. Under Component 3: Value Chain Studies: The project engaged the RBJ Value Chain Analyst to support the undertaking of the value chain scoping exercise to prioritize value chains that are important to analyse for the project targeted population. However, the exercise proposed different value chains from those that were envisaged during the project design phase and these value chains (sorghum and beans) have already been analysed. The project is currently implementing the recommendations of the analysed value chains. In addition, as part of capacity strengthening for the project staff, additional value chain studies are in progress for drought resistant sorghum and Irish potatoes, as value chains that have the targeted population's interests. The PMU and the Ministry of Agriculture decided not to revise (reduce) the fortification target because the CO is currently implementing Home-Grown school feeding pilot which will contribute to the set target. With WFP support, the government has procured maize grains from small-holder farmers and with WFP support fortified the grains for distribution to affected by drought. An estimate of 1,946 MT has been serviced through Lesotho Flour Mills. 1,083 MT of MML procured for the school feeding programme and 863 MT fortified out of 1,166 MT of maize that was procured from smallholder farmers with WFP contributing through support to the local purchase task team. More tonnage will be reached through a recently launched Monaco HGSF programme being implemented in Quthing and Mohale's Hoek – salt, vegetable oil, maize meal and bio-fortified beans that are distributed to the schools.	Integration of study findings: Phase II has been designed to ensure that the findings of key studies conducted under phase I are fully integrated in a number of ways, including: (i) integrating the findings of the Community climate change perceptions and local knowledge study into the design of the project's approach to last mile climate services (LMCS), particularly through adopting solutions to address the barriers to the uptake of climate services in Lesotho identified by the study (see Annex 10 for more details); (ii) revising the National Climate Change Communication Strategy (NCCCS), finalised in August 2021 under IACoV phase I to integrate key inputs that have been subsequently developed, including the Community climate change perceptions and local knowledge study, and the Climate Change, Food Security and Nutrition Analysis; as well as lessons learned from project implementation; (iii) operationalising the NCCCS across the 10 districts, which will ensure that the integration under (ii) above is implemented on the ground; and (iv) Integrating the findings of the study to reduce PHL into the design of Component 3 and allocating additional budget for output 3.1.3. Based on the findings of the SH and community consultations conducted for phase II, the project will focus its value chain activities on drought-resistant sorghum and beans, as these are consistent with the project's central CC/FS/GEN/NUT nexus. Phase II will additionally include value chain work on a limited set of value chains that have potential for significant income generation and ecological co-benefits, involving invader species in the rangelands such as rosehip, with support to developing a pathway for organic production and processing. Fortification: phase II will not have specific activities to promote fortification but will work in synergy with other WFP and MAFSN activities that may include fortification.
2. Through meeting key stakeholders at national and district levels, the project management unit should a) review community action plans and assess progress against planned actions and b) develop implementation mechanisms that highlight actions that can be completed within the remaining project period and actions that need to continue beyond the current project end date for successful completion, indicating the time frame clearly.	The review of the community action plans is in progress, more consultations with the communities will be undertaken before October 2024. Planning workshops have been held for the 3 components across the 3 districts with the Ministries of Forestry, Agriculture, DMA and LMS establishing plans that highlight how to operationalise pending activities. Implementation plans/mechanisms and timelines have been developed for the 3 components. While some activities will be completed, it is important to note, however, that the activities pertaining to additional awareness creation and operationalisation of the national climate communication strategy, last mile delivery on seasonal forecasts and implementation of critical study (that include IKS, PHL) recommendations will be implemented beyond the non- cost extension period.	Phase II has been designed to ensure that implementation of activities across the three components is deepened as well as scaled up. The CBPP process in phase II will place additional emphasis on sensitisation that not all community needs can be addressed through the project, and on mapping, with the GoL technical teams, how and when other needs could be addressed, and through which support mechanisms. The project will place more emphasis on advocating for the uptake of relevant elements of the community action plans into district plans that are funded, as well as in developing synergies with the LoCAL project that is promoting resource allocation for climate adaptation needs at local level.
3. The project should address the existing project barriers by a) accelerating procurement processes while adhering to the set donor standards and regulations b) broadening the pool of experts, including people/companies/firms from neighbouring countries (including South Africa) to undertake technical consultancy assignments and services required and c) improve working relationships with key partners and stakeholders (including beneficiaries), particularly at the district level by sharing	Project implementation meetings are being held to inform the teams of any challenges or progress relating to procurement processes. HR and Procurement have broadened the scope to include international candidates/service providers of recruitment and service provision. The PMU continues to provide all necessary documents on time for provision of lunch allowances and DSAs for the government staff. No good progress on this issue to date.	In phase II, the lessons learned regarding procurement have been integrated into the project design. The GoL will have responsibility for procurement of smaller items, to reduce delays. International candidates/service providers can be included for recruitment and service provision where this is necessary. There will be monthly meetings between the IE and the EEs to review progress and address operational bottlenecks in a timely fashion.

information on delays procurement of tools/services and addressing delays in the provision cash-based transfers to the beneficiaries and delays in provision of lunch incentives and per diems to government staff.		
The PMU should use the results of the actions from recommendation (2) above and rationalize the need for the suggested request of non-cost extension.	The non - cost extension has been granted up to April 2025.	N/A
4. Develop a clear exit plan and sustainability plan for the project overall and especially for the community assets to address environmental management activities in a consultative process with the communities.	The project took an initiative to strengthen project ownership by government line ministries through continuous planning and delivery of work using existing government coordination structures at national and district level for sustainability (PSC, PIT and DDMTs). WFP is supporting capacity strengthening activities to the government to sustainably lead project activities. The Project is finalizing the engagement of the community-based organizations that will start to work in August 2023 to manage and operationalize the exit strategy among other capacity development activities at community level.	Sustainability provisions have been strengthened in the FP for phase II, including spelling out sustainability provisions across all concrete outputs in terms of social, environmental, institutional, economic and financial sustainability. (Annex 12)
5. Work with the Ministry of Agriculture to review and assess some Income Generating Activities i.e. piggery, and poultry identified by the beneficiaries in the project sites that are remote from the market centres in the districts. A clear strategy to link the remote project sites with marketing opportunities. This should be built on market access opportunities i.e. market "days" where beneficiaries are linked with off-takers in the three districts, that the project has supported the Ministry of Agriculture to undertake periodically.	The project team is training different community groups engaged in IGA on market-oriented production to ensure that produce has a marketing outlet. More trainings on the choice of business, pricing and market intelligence are continuing. In addition, SHFs are exposed to market days and market round-table discussions for market linkages.	Phase II will place additional emphasis on ensuring that IGAs are linked to tangible market access through: (i) ongoing training for different community groups engaged in IGA on market-oriented production; (ii) developing a system of market days at project sites to build capabilities of different groups to be able to harness the opportunities at district market days; (iii) working with the NUL Innovation Hub and their outlets in Maseru to provide streamlined market access for rural producers; (iv) sensitising producers on the MoA's e-marketing app and providing support for gender-responsive digitalised dissemination of market information linked to climate services; and (v) improving access roads through communal asset building in new sites in Thaba Tseka, to facilitate access to the town markets.
6. The PMU working with CAM to strengthen documentation and sharing of lessons learned with stakeholders. This will be done using different platforms and avenues.	The PMU has been working closely with media houses to report the project's successes, lessons learnt and initiatives through different channels. The newsletters and monthly reports are used for documentation while national symposiums, road shows and dialogues among other instruments are being used to promote visibility of the project activities.	Phase II has developed a more robust approach to evidence generation, lessons learning, and ongoing dissemination of the project's action learning approach. The proposal sets out different mechanisms for this in the discussion of 'Outcome 2.3: Enhanced project visibility, knowledge management, lessons learning and policy advocacy', in part II.A.
7. Continuous awareness raising of the project beneficiaries is important to make sure that the communities understand the need for the climate change adaptation strategies promoted by the project.	The district action plans to operationalise the NCCCS have been developed in 9 districts except Maseru.	After the NCCCS has been revised in phase II, district action plans to operationalise the NCCCS across all 10 districts will be implemented. Phase II has been designed to integrate continuous awareness raising on climate change through the activities set out under Component 2. Additionally, phase II will identify and support a range of climate change champions across socio-economic groups and will capacitate a larger corps of disseminators for LMCS. Phase II will strengthen the capabilities of LMS and the NCCC to continue to enhance and expand the CC awareness raising and communication activities in Lesotho during and beyond phase II.

Annex 2. Achievements and lessons learned, IACoV Phase I

Planned	Achieved	Commentary and Lessons Learned

Output 1.1.1		
-Delivery of High-Performance Computer (HPC).	In line with GoL systems building, component 1 partnered with GEF EWS 2 project to procure a high-performance computer (HPC) to aid LMS technical staff to analysis heavy climate datasets and run locally customized models. The HPC was also procured with 5 workstations which were handed over to government ministries namely, agriculture, water, disaster management, health and LMS.	The HPC needs to be upgraded to enable rapid models runs and to be effectively used in informing/enhancing decision-making by remote communities for enhanced resilience in their agricultural practices, disaster preparedness and choice of livelihoods.
-Installation of Weather research and forecasting model (WRF).	The delivery of the HPC led to the installation of a weather research and forecasting (WRF) model into the HPC by the Weather Information Solutions (WIS) consultant, who capacitated 11 (1 Female, 10 Male) experts of LMS team on how to install and utilise WRF for producing short range forecasts. The consultant later ran WRF with LMS to generate long term forecast. The successful installation of the model led to setting up of a web-based content management system for model output visualisation and display/dissemination of the products.	WRF model was not explored to its full potential due to the limited speed and storage capacity of the HPC. It required a longer time for forecasters to run the model to produce forecasts for different scales; the limited storage exacerbated the limitations of WRF. One of the challenges was to integrate recent AWS data into the model runs of WRF. A solution to this will lie in storing AWS data on HPC instead of cloud base storage only
-Data management training for data capturing LMS officials.	Component 1 supported internal trainings for LMS on data management, which introduced 14 (10 Female, 4 Male) participants in the climatology and station network section to existing methods and tools used in data management within LMS. Insights were provided on the process of carrying out meteorological obse rvations in met stations, quality controlling the climate data, Microsoft Excel Basics, R-Instat for Climate data management, climsoft database management system, etc.	There is a need for continuous capacity building on tools that manipulate and analyse data due to their complexity. Data plays an integral part in running either for forecasts on short or long scale. Therefore moving into phase 2 where the focus will be on development of tailored climate information and its dissemination, component 1 must be intentional on this field.
-IRI to conduct a training workshop for LMS technical team to develop the Map-rooms.	A set of ingrid map rooms were developed on behalf of LMS by IRI. However, this approached proved to be unsustainable as LMS was the custodians of these maps with mandate to update them on monthly and seasonal scales. Furthermore, IRI lost capacity to support the developed ingrid map rooms hence discussion to switch to python map rooms emerged on the third year of the project. The two Ingrid map rooms being the climate analysis map room provided information on the past climate while the climate monitoring map room enabled monitoring of the current season.	The developed map rooms became very handy in seasonal forecasting to beef-up the decisions regarding predictions for the expected season. There was also automation of map room data online.
- Develop a specialised sub-seasonal to seasonal precipitation and temperature forecasting system for drought at national and sub-national (3 targeted districts) forecasts	Post enhancing of climate database component 1 focus shifted on the tools to ingest data and produce forecasts. This was done by building the capacity of LMS to generate seasonal to sub seasonal forecasts using the python climate predictability tool (PyCPT) of IRI. The tool together with the enacts dataset was used to research predictability of quantities such as the total rainfall for this season and number and the length of dry spells including other variables such as number of wet days, onset, cessation or length of the season. After the trainings LMS was in a better position to issue seasonal forecasts on precipitation, with up to 6 months lead time.	While the S2S system was developed and two experts were sent to New York for further in-house training, the S2S system is yet to be fully operational in Lesotho. LMS has been monitoring how the system behaves in handling different seasons. There is also a need for validation of stakeholders on the system.
- Strengthen LMS archiving system and historical database with respect to sub-seasonal to seasonal forecasting needs	Component 1 assisted LMS to enhance national climate services (ENACTS) approach with IRI support. This approach focused on the creation of reliable climate data and tailored climate products that suited national and sub-national decision-making. The first step was to generate spatial climate data with resolution of 4 km also with temporal complete gridded historic climate data series going back as early as 1981. This was done by combining LMS's station observations with satellite rainfall estimates. IRI trainings kicked off remotely, however this modality was quickly changed to physical as trainings proved to be slow and ineffective towards LMS. To enhance data,12 (3 Female and 9 Male) LMS staff were trained on the latest version of IRI's Climate Data Tool (CDT). The focus was on quality controlling station data aiming to combine station observations with satellite. IRI further capacitated LMS to generate a historical climate data record at daily and 10-daily time scales, up to the most recent possible year station data available. Post the training, LMS had been responsible to update these data sets through the skills the acquired from IRI. These data was later used to support LMS in developing online mapping services (Map rooms).	This activity must be done continuously by LMS where each year the team will append the recent year onto the previous file.
-Support LMS to implement impact-based forecasting (IBF)	Component 1 further supported development of impact-based forecasting (IBF) following the arrival of HPC and the installation of WRF model. The team of 9 (1 female and 9 male) LMS experts was introduced to IBF and phase I project in collaboration with EWS II project further engaged WIS to rollout IBF. The IBF for Lesotho was structured to combine hazard, exposure, and vulnerability data to identify risk and support decision-making, with the ultimate objective of encouraging early action that reduces damages and loss of life from natural hazards. Traditionally, LMS issued hazard focusing warnings to communicate impending extreme weather conditions. Therefore, WIS embarked on the journey to	To date the consultant has identified climate vulnerabilities within Lesotho. Further the risks were mapped which are imposed by weather to enable effective and realistic communication with different socioeconomic groups (particularly youth) on forecasts. LMS further developed risk tables. All these developments were meant to pave way for implementation of IBF. This will be a key focus for phase II, to enable enhanced AA and LMCS.

	understand the impacts brought by different weather and climate hazards, through community consultations in two project sites; this was integrated into a national report to inform establishment of IBF.	
-Training staff to maintain observational database on an ongoing basis	EWS II and IACoV I established that to strengthen the early warning system of Lesotho, it was vital to start with enhancing national climate services (ENACTS). This approach focused on the creation of reliable climate data and tailored climate products that suited national and sub-national decision-making. The first step was to generate spatial climate data with resolution of 4 km also with temporal complete gridded historic climate data series going back as early as 1981. This was done by combining LMS's station observations with satellite rainfall estimates. IRI trainings kicked off remotely, however this modality was quickly changed to physical as trainings proved to be slow and ineffective towards LMS. To enhance data,12 (3 Female and 9 Male) LMS staff was trained on the latest version of IRI's Climate Data Tool (CDT). The focus was on quality controlling station data aiming to combine station observations with satellite. IRI further capacitated LMS to generate a historical climate data record at daily and 10-daily time scales, up to the most recent possible year station data available.	Post the training, LMS had been responsible to update these data sets through the skills the acquired from IRI. These data was later used to support LMS in developing online mapping services (Map rooms).
-Procurement and installation of Automated Weather Stations (AWS).	The models installed in HPC needed data of high resolution hence the procurement of the AWSs. Component 1 contributed USD 100 000 to procure 76 AWSs, which included various stations Climate (15), Rainfall (48), Agrometeorological (9), Synoptic (1) and Lightning Detection (3). The collected data is used to produce nowcasting, short, medium and long-range weather forecasts, as well as being an input into the NWP model that was installed in the HPC. Moreover, the AWSs dataset was integrated into a single easily accessible database to develop monthly to seasonal climate analysis and predictions for preparedness. The data was further analysed by LMS to produce tailored climate services information. In April 2024 a training for LMS maintenance team was conducted by the South Africa company called Optech Environment (sub-contracted under SIAP the main contractor) on how to install AWSs on-site. Post the training, LMS team was expected to install the 76 AWSs independently across the country.	The procured AWSs will make a huge impact in strengthening the climate monitoring network of Lesotho. However, there is still a need for more stations for better coverage of the country. Moreover, there is a particular need for procurement of a limited number of stations aiming at Thaba Tseka, which is a new district for project implementation.
-Capacity strengthening of DMA on Vulnerability Historical Data Rescue and mapping of historical vulnerability years to support establishment of AA Plan.	-DMA was capacitated on historical vulnerability data management and mapping of vulnerability years into the FbF Map tool.	
-Facilitate IRI Support to Anticipatory Action Plan (AAP) Development of smart tools.	-AAP development done (Smart docs developed, TOC, AAs in alignment with Thresholds). AAP Targeting 25,644 HHs (103 000 beneficiaries) in 4 districts of Mafeteng, M.Hoek, Quthing and Thaba-Tseka.	There is need for the project to support the expansion of AA coverage to include the rest of the six districts of the country, by equipping more DMA staff with skills to develop AAPs, as well as to consolidate all the AAPs into a country action plan/strategy to inform future AA.
Output 1.1.2		
Support Development of District Anticipatory Action Plans	Anticipatory Action plan covering 4 districts was developed, validated and approved.	Post the successful triggering and implementation of AAP in 4 districts, the GoL found it befitting to include the other six districts. Therefore, Phase II will support this as well as strengthen the capacity of relevant stakeholder staff involved in AAP design, implementation, and monitoring. The GoL requires additional support to integrate AA into DDR policies.
Engagement Consultant: -Assess Benefits of acting early to further inform AA programming.	-Regarding the benefit of acting early study/assessment, an after-action review on AA activation/implementation was conducted and results will address what was envisaged by the study.	
-Engagement of consultant to assess "Long- and short-term impact of climate change on food security & nutrition"	Assessment done and report completed, and results shared.	The delays in engaging the consultant came as a result of long recruitment processes within WFP. Speeding up the recruitment through HR support could help in avoiding delays.

Study for integration of the AAP/SOPs for drought into the legal framework	Not done.	The AAP was approved in July 2023 and subsequently triggered and implementation done from August 2023 – June 2024, so study or advocacy and discussions on integrating SOPs for drought /AAP have not started, as its benefits are being documented.
Output 1.2.1		
-Engage consultant: Indigenous knowledge study on Climate change and climate information (1.2.1)	Component 1 engaged a local consultant to conduct the 'Climate change perceptions and climate information needs study'. The study was intended to contribute to understand among other things how climate change is perceived and experienced by communities, from their socioeconomic perspectives. That included how gender and age have exacerbated climate change vulnerability, especially in relation to increased gender elated workloads and opportunity cost associated with workload changes. An important aspect of the study was to understand how people take decisions related to their livelihoods, and to identify potential entry points to blend indigenous with scientific knowledge. The study developed recommendations on engaging community leaders, opinion formers as well as vulnerable communities in a more productive and sustainable manner. At the time of developing the full proposal, the study was in its final stages of approval.	The study was undertaken late towards the end of the project. The recommendations of this study will be used in phase II for co-production of early warning information and last mile climate services. This will promote ownership of the information between climate experts and local communities. This will enhance uptake of the messages by the communities and ultimately influence social and behaviour change. The study could not be used in phase 1 of the project due to its late approval.
Output 1.2.2		
Identify range of potential service providers and most suited dissemination channels for CS (e.g. ICTs, radio, schools, theatre groups, farmers' organizations, magazines, pamphlets, etc.), based on community needs assessments, and establish partnership.	Service providers have been engaged for suitable dissemination channels to disseminate CS and CC messages e.g. comedians, content creators, radios, bulk messages, theatre etc. There were also district action plans to aid dissemination.	Though dissemination of CS and CC was done, it was not adequate as more people need to be reached through different platforms even beyond project areas. Therefore, all the platforms have to be utilised during phase 2. Secondly, some platforms like radios and TV lack equipment to track number of people reached. Further development of LMCS is planned for phase II.
Develop interface with ongoing PICSA process at district level	The project piloted the integration of weather and climate information into Agriculture (IWCIA) sector model in the two southern districts however the plan was to cover all three districts. This approach was similar to PICSA model but rather with focus on weather and climate information into agriculture sector. Therefore, LMS took the lead in that activity and capacitated 86 extension staff in Mohale's Hoek and Quthing.	Although only three districts were planned for the pilot, reaching the remaining eight districts will have far-reaching results with a lot of MAFSN staff capacitated on this integrated approach; this is still pending, as the plan was postponed due to MAFSN being occupied with cropping season seed distribution.
Disseminate climate service and climate change targeted messages on an ongoing basis.	This has been done since 2021 to date, where the project supported LMS in SARCOF, NACOF and DICOF climate services information development platforms and dissemination in country. Furthermore, the project supported formulation of NCCCS and climate change messages and dissemination. Lastly, support has been extended to DMA in developing Early Warning messages and dissemination in the country.	LMS has been consistent in producing the seasonal outlook information however there are delays in issuance to the consumers. This hinders proper planning at national level to the communities. Therefore, more advocacy is needed to persuade LMS to release information timely.
Capacitate partners on seasonal forecasts (how to access, translate and communicate key information to different audiences through different methodologies)	LMS through NACOF and DICOF has been capacitating partners on access, translation and communicating CS messages to multiple community groups.	Better coordination of these activities is needed for better results. This can be achieved by involving DMA more for sector coordination. For dissemination of messages to the communities' post DICOFs especially climate related, most of DDMTs requested capacity strengthening to interpret and communicate the information. There is also a need to support DMA to revive the EW team to ease development and dissemination of messages. More advocacy for early release of seasonal forecast is needed. While dissemination of CIS has been done on national and district level, this has not cascaded to the community level in any targeted way.
Output 2.1.1		
Design and operationalise National Climate Change Awareness Raising and Communication Strategy	The NCCCS was developed and endorsed in 2021. Since then, projects have been launched involving the same executing entities. There is still insufficient ownership, with many feeling excluded from the process.	It would be beneficial to update the strategy in phase II, with a focus on including all stakeholders to foster a sense of shared responsibility, ensure that all stakeholders communicate the same key information to the end users, and allocate resources efficiently, avoiding duplicated efforts and maximizing impact on social and behavioural change.

Formulate gender-transformative and age-sensitive National Climate Change Awareness Raising and Communications Strategy (NCCAR&CS)	In collaboration with Gender Link, 3,000 gender-transformative awareness-raising materials were printed and distributed to communities during public gatherings and school competitions. The project has also worked with the Ministry of Gender to further raise awareness through these public events. To make the dissemination more engaging and less formal, comedy has been used as a tool to address sensitive topics, including gender-based violence, in a way that resonates with the community. The awareness raising activity is ongoing. National music School competitions were conducted where children were given climate adaptation messages to compose songs, maths and science in Mohale's Hoek, regional debate competitions and competitions where learners wrote climate adaptation business proposals.	Thorough community sensitization and strong collaboration with the Ministry of Gender across the country is needed to raise gender-transformative awareness within communities. It is essential for men to understand that climate change has brought about profound changes, necessitating them to change some cultural beliefs and norms. Many children continue to be removed from school to work and support their families, while others are managing households due to their parents migrating to seek employment. GBV persists, partly because men, as heads of households, struggle to meet their families' needs.
Develop clear branding and key targeting at different levels	21 sign boards were installed at all IACoV project sites. Additionally, 24 billboards featuring climate change and nutrition awareness messages have been erected across the 10 districts of Lesotho.	Clear branding ensures that messaging gets across to different audiences and helps the audience to easily recognise and remember the messages. Continuous branding is needed for project positioning.
Develop key messages for links between climate change, food security and nutrition to be delivered through SBCC	Messages for all sectors were crafted in the NCCCS and are now being shared through various channels, including radio, social media, drama, comedy, podcasts, public gatherings, bulk SMS messaging, and billboards. It is estimated that approximately 1.5 million people are receiving information on climate change, climate services, and nutrition through these platforms.	Through the revision of the NCCCS, more messages will be developed targeting the different audiences. All the channels of communication which are currently being used to disseminate the information need to continue and be further developed.
Develop action-oriented research programme for tertiary institutions on the drought /climate change / food security and nutrition nexus	The National University of Lesotho has been commissioned to lead the action-oriented research program, collaborating closely with other higher education institutions. They have visited the project sites to observe the activities and establish the research methodology. A detailed research plan has been submitted, with the research set to commence in September.	The action-oriented research programme results will be integrated into phase II to help to improve on the quality of interventions and will be highly beneficial to all the components as well as all the stakeholders.
Develop 5-year Action Plan for implementation at different levels, by the Secretariat, in association with the NCCC	Not done.	Strengthening of the NCCC's capacity to deepen their understanding and effectiveness in their coordination role needs to be carried out before the action plan development.

Output 2.1.2		
Enhanced capacity of media houses and reporters to effectively write and publish climate change stories.		
Contextualise an existing media training programme on climate change to the Lesotho context, and, using the background material developed above, develop a Lesotho-focused media training manual	The Media Institute of Southern Africa was tasked with developing a media press kit on climate change and nutrition. A zero draft has been submitted following initial consultations.	Additional consultations are needed to involve all stakeholders, to ensure ownership, and prevent duplication. The CC-FS-GEN-NUT nexus can be further integrated and information on this disseminated.
Provide training for journalists and editors on the fundamental aspects of climate change, the current and projected impacts in Lesotho, and writing compelling climate change stories	53 journalists and editors were trained in climate change reporting. Since the training, the number of published climate change stories has risen from 2 to 70, with the final count still pending reconciliation.	The media play a crucial role in spreading information. By equipping them with tools and knowledge, messages can be spread to different stakeholders across the country. Phase II must continue to enhance reporting skills on CC-FS-GEN-NUT, to drive positive social behavioural change.

Output 2.1.3		
Communities understand and use climate information and are aware of climate change threats and impacts on food security, nutrition and livelihoods		
Under the umbrella of the NCCAR&CS, design a District Climate Change Awareness Raising Strategy and Action Plan, to interface with existing activities and ongoing projects, in each of the three southern districts	District action plans have been developed with District Disaster Management Teams in 9 districts of Lesotho	The developed district action plans should be improved from time to time, this could help the different district to monitor the progress on their activities.
Implement at district and community level awareness raising activities identified in the District Strategy	The district action plans are currently being implemented in the three southern districts and are ongoing. Implementation in the remaining districts is scheduled to begin in September.	District action plans were developed in a bid to form collaboration with the aim of avoiding duplication of efforts which have evidently caused a lot of community fatigue that delays positive behavioural change which we are advocating for. The implementation of these plans is going very well, however, a lot of resources need be put into this exercise as information needs to be spread or disseminated nationwide.
Provide support to the established Agricultural Resource Centres in each of the three districts, so that climate change is mainstreamed into their operations (including capacity development for a Climate Change Focal Point from existing ARC staff, and resources for climate change-related displays and awareness raising events)	126 extension officers have been trained in climate-smart agriculture, climate change, and the use of climate services information to guide their agricultural decision-making.	This activity is done in collaboration with component 1. Continuous support is needed to bridge the evident gap in terms of extension support in all the districts, which has come up as a serious concern from beneficiaries.
Raised awareness of scholars through integration of climate change into school curricula and training of teachers on climate change impacts		
Support the review, update and dissemination of teachers' climate change tool kit and adoption of whole-school approach programmes to integrate climate change and food and nutrition security into school curricula	The climate change toolkit for teachers was successfully upscaled and endorsed in 2022.	Several new projects are interested in creating climate change toolkits. However, it would be more effective to enhance and expand the existing toolkit, as there is currently only one curriculum available in the country. Introducing multiple toolkits could lead to confusion and hinder successful integration. This situation has surfaced because these projects were initiated after the IACoV project developed several key documents. We should expand our list of stakeholders and collaboratively review these documents to identify and address gaps. Revising them will help close these gaps and foster a sense of ownership among all implementers.
Design and operationalise training programmes on climate change, food and nutrition security for teachers, based on the updated climate change toolkits, in the three southern districts	As of October 2024, all 198 schools in Mohale's Hoek, 40 schools in Mafeteng and 78 in Quthing, have received training on integrating climate change into daily classroom teaching. The training exercise is ongoing and will also include non-formal education.	This is a critical exercise that should be extended to all districts. Climate change integration into school curricula must not be limited to the districts where the project is implemented. Non-formal educational structures should be further engaged.
Scale up the climate-smart agriculture manual and practices piloted by RVCC in the three southern districts	The climate-smart agriculture manual for schools and the permaculture manual were scaled up, with 1,000 copies printed. Of these, 500 copies of the CSA manuals were delivered to schools in the three southern districts, and 305 permaculture gardening handbooks were distributed to extension officers across all ten districts of Lesotho.	The Permaculture Gardening Handbook and the Climate Smart Agriculture Manual for schools need to be revised in collaboration with projects such as SAPD, which build on the lessons learned from initiatives like the RVCC project.
Output 3.1.1		
Provide sensitization and capacity development for key implementing partners (government and NGO) at national, district and community levels, to enhance their capacity to mobilize and support communities for local adaptation planning	Monitor the implementation of assets and community maintenance of them on an ongoing basis, according to the district-level M&E system developed under Output 3.1.1. 101 field supervisors trained in public works programs (83F, M18). 21 Community Adaptation Plans developed.	Stakeholders are using the skills learned from this workshop in their respective Departments. Field supervisors trained made it easy to execute activities during Covid when movement was highly restricted. Beneficiaries were able to make homestead gardens and benefit from vegetables produced.
Carry out feasibility study on suitable trees for specific soil and other conditions in the three southern districts (afforestation, agroforestry, and high-value tree crops)	This was not undertaken. Results from similar studies undertaken by other actors including the Land Atlas by FAO were used to inform tree planting activities including orchard establishment.	The feasibility study will be prioritised to improve on the previous studies which the component initiatives were built on.

Support the Department of Agricultural Research to re-establish a seed bank for indigenous vegetables and indigenous medicinal plants and to multiply suitable species	A seed bank has been established for the Department of Forestry, and the department has started using it to store seed varieties from trees, shrubs and grasses for improved germination.	For expanded use of the seed bank, the project still needs to engage the MEF such that the Department of Agricultural Research (DAR) is able to use the infrastructure for their research purposes in advancing food and nutrition security.
Carry out cost-benefit analyses on possible concrete community adaptation measures (identified during the stakeholder consultations)	The cost-benefit analyses was conducted in the fourth year of the project.	The recommendations of the study have not been fully implemented but will be incorporated into phase II and future project interventions. Study showed that benefits from communally owned activities outweighed the costs.
Develop at district level the approach for integration of community resilience plans with district level development planning and land-use planning	At the district level, the project implementing team (PIT) has been established and sustained by the project in the 3 districts. Here, the EE and all climate change projects plan activities together, share reports, monitoring trips, etc.	Coordination through the PITs is a good practice which will continue throughout the project lifetime as it brings all stakeholders together, minimises use of resources and avoids duplications.
Develop detailed overlay of available hazards and vulnerability context for the three districts / implementation sites	This one has been under Component 1.	It has been able to inform the anticipatory planning process of Component 1 discussed above.
Facilitate preparation of detailed community resilience and adaptation plans in the three districts through a community-based planning process that integrates scientific information and local and traditional knowledge – including harmonized plans for livestock, land and water resources management and sustainable natural resources management	Following training of the district teams on CBPP approaches, the communities were engaged in planning and prioritizing their needed resilience building actions. The resultant action plans were compiled. These informed interventions implemented in the different areas.	The Executing Entities developed their matrices of activities after the CBPP process was completed. These plans included all activities which were mentioned by the community for adaptation. This has been very helpful because during the staff turn-over, it was easy for the newly transferred officers to understand the activities planned for each site and the progress made against them.
Ensure that higher-level district plans incorporate the outcomes of community resilience and adaptation plans		
Develop by-laws to ensure sustainability of assets created	The drafting of the regulations which will determine the access and use of resources which are communally owned is still ongoing. This had to await the elections of new local councillors. The Constitution says that only local councils have a mandate to develop the bylaws.	The local councillors have now been capacitated to develop the community bylaws, the project will piggy-back on them to protect the communally owned assets, while the privately owned assets such as communal gardens and orchards will be governed by cooperatives law/regulations where cooperatives are involved.
Map and identify locations for implementation of FFA activities informed by community resilience and adaptation plans.	Completed.	The project used the Electoral Division as the boundaries for locations, which made it easier to work and avoided a lot of disputes because each ED has its local councillor and the boundaries are clearly set by the MLG.
Carry out detailed environmental and social safeguards screening	Completed	The ESMP was developed after the screening of all activities and implemented
Output 3.1.2		
Develop action plan for implementation of community productive assets, optimising synergies across the districts, and specifying time frames and service provider responsibilities, including MoUs	Completed. There is MOU with the National University of Lesotho, which operates the complaints and feedback mechanism for beneficiaries to give feedback on project activities, either positive or negative.	This is a good platform which brings growth and change in the implementation of activities.
Implement agreed asset creation activities in the three districts according to the detailed asset creation action plan	Numerous asset creation activities have been implemented and will be fully documented in the final project report and terminal evaluation.	More focus is needed at household level rather than at communal level, more trainings will be planned for the secretaries and foremen and water harvesting techniques are to be strengthened for improved access to water.
Cash support during the lean season through a public works program to vulnerable households	11,759 households received cash support (F7643, M4116)	Many benefits derived from the CBT. Some communities saved 10% of the cash each month, purchased small stock for improved nutrition at households and community, others started a cottage group with the savings and are making cosmetics and selling products locally and in South Africa.
Community productive assets created through the project support	Rangeland rehabilitation, brush control and reseeding for 6,241ha. 41 communal gardens established under climate-smart agriculture, 13 under protected agriculture. 16 orchards established. 18 areas established as Woodlots	Community assets were successfully established following project procedures. Forest Management Committees were formed for sites where forest trees were planted, as DoF had requested to train their staff on this issue before capacitating the farmers.
Community water development for small-scale irrigation and domestic use	5 ponds constructed. Fish farming not established because water harvesting and harnessing had to be done first; currently, there are areas ready for fish farming with reliable and constant water supply.	It is proposed that fish farming activities be executed in Thaba-Tseka in phase II because existing farmers producing fish need additional support with inputs and market linkages. The Department of Livestock feels fish farming untapped and should be explored.
	10 spring tanks constructed to support irrigation	
	3 sand dams constructed for irrigation and household water provision; water is safe for drinking and versatile for various other uses. The sand dams effectively filter and purify the water, making it suitable for household consumption without additional treatment. Increased Stream Volume: The captured water has enhanced the flow and volume of the streams where the dams are installed,	By improving the availability and quality of water, sand dams contribute significantly to both the health and livelihoods of the communities and should be continued into phase II. Versatile Uses: In addition to drinking, the water can be used for: Agriculture: Irrigation for crops and gardens. Livestock: Providing drinking water for animals. Sanitation: Supporting hygiene practices and cleaning.

	which can support local ecosystems and provide additional water resources for various community needs.	
Delivery of NFIs to both category A and B beneficiaries including schools and nutrition clubs through government staff support	Tools for gully rehabilitation. Beehives - given to farmers after training in apiculture. Fruit trees. Seed varieties for household gardening. Small stock provision to HHs and communities; rabbits, ducks, pigs, and free-range chickens	
Provide fuel-efficient stoves and training on their use	76 households-built clay ovens as energy-efficient facilities. Clay ovens are yet to be built in all 3 districts for the remaining duration of the project. Planned workshops will be held for extension workers and women-headed households to support the implementation and usage of the ovens. Some women would like ovens to be built inside their houses, to double as a source of warmth, improving household comfort during winter. Training of communities on the construction of energy-efficient stoves (14M, 146F).	The clay ovens are noted for being energy-efficient and significantly save time for women by reducing cooking and baking time. Women are able to bake and sell bread and scones locally in areas where access to baked goods is limited. Women have also been taught how to prepare pizza using locally available ingredients, enhancing their culinary skills and options. These results provide an income source and address local food accessibility issues.
Household gardening	11,759 households established climate-smart gardens and 3034 households received shade nets for protected farming	Procurement of shade nets for other households who participated in public works will be completed by the end of 2024
Monitor the implementation of assets and community maintenance of them on an ongoing basis, according to the district-level M&E system developed under Output 3.1.1	Process monitoring for the activities was conducted and reports shared.	The M&E reports were used to improve implementation of activities in project sites.

Output 3.1.3

Planned	**What was achieved?**	**Commentary and lessons learned**
Conduct situation analysis on post-harvest losses at district level, to include recommendations for priority actions	A nation-wide postharvest situational assessment was conducted to assess, identify, and recommend appropriate, cost-effective and climate resilient harvest and postharvest technologies to be used in Lesotho to manage losses. District action plans were then developed for all districts and trainings for smallholder farmers continue.	Most recommendations are yet to be implemented due to late completion of the study. Some of the recommendations can be informed by the ongoing farmers' profiling, undertaken to collect targeted smallholder farmers information to help inform planning of efficient and impactful agricultural interventions tailored to each farmer's unique circumstances.
Train farmers and implement actions on post-harvest losses (e.g. providing tarpaulins, behavioural change interventions, rehabilitation of small structures)	ToTT for 26 extension staff (all female) from the 3 districts was conducted on food processing and preservation to facilitate farmers and households' step-down trainings. As a result, 657 farmers (530F:127M) have been trained on preservation. 399 farmers (184M:215F) have been provided with basic training on how to manage losses. 196 farmers (119F:77M) were provided with and are benefiting from the use of postharvest management equipment including tarpaulins, weighing scales, storage pallets, and food hydrators/driers. In collaboration with the CO, five community groups were provided with shade-nets for protected agriculture and management of losses.	With the study having been delayed, more farmers still need to be trained and supported with skills/equipment to manage postharvest losses., This is because some of the trainings required the farmers to be given postharvest management equipment whose distribution and trainings/demonstrations are being finalized.
Carry out value chain analysis studies for relevant drought-resistant crops leveraging on the work done by FAO – to include sorghum, high-value tree crops, indigenous vegetables, and indigenous medicinal species	With support for the WFP RBJ, the project conducted a value chain (VC) scoping mission to identify priority value chains for the VC development work, to complement the work being done by the GoL and its partners. This would help the project confirm the value chains highlighted in the project document. The value chain prioritization exercise highlighted vegetables and small stock (poultry and piggery) as the priority as against the sorghum, indigenous vegetables, medicinal herbs that were recommended in the project document. However, since most of the fruits, vegetables and small stock value chains had been recently finalized, the project has in the meantime been trying to implement recommendations of the other reports with a focus on the harvest and postharvest segments.	The value chain studies were not conducted as they did not form the key priority at the time of the scoping mission. However, as part of capacity building for staff who have been trained on value chain analysis, some of these studies will be undertaken as part of the practical work and exposure for both government, project, and WFP staff.
Facilitate linkages with WFP local purchase programme and GoL national school feeding programme. Support the formation and functioning of Farmers' Cooperative Societies for marketing of surplus produce for school feeding, comprised of key community socio-economic groups (male and female), with relevant objectives and activities	The project supported the resuscitation of the Local Purchase Task Force to coordinate procurement of local farmers' produce in the country. This is a multisectoral team made of 27 individuals across relevant public and other sectors. The team has been meeting at least twice a year. Through the WFP school feeding programme, a total of 1,083MT of maize meal was purchased from local farmers through one of the local milling companies. In addition, the government through its local purchase initiative and through the project and WFP's advocacy efforts bought, milled, and fortified 1166MT of maize (producing 863MT maize meal) for redistribution to vulnerable households. A total of 141 farmers (63M:78F) were profiled and this formed part of the capacity needs assessment to inform farmers' support by the project. Market linkage forums and buyer seller round-table discussions have been held by MAFSN with support from the project across the three districts. These have been bi-	Sorghum meal has not been procured for the school feeding as anticipated because it is currently not fortified – the fortification legislation is only being rolled out by training government staff who would monitor the processes. Efforts to encourage the use of sorghum will be explored in the Phase II of the project, although phase II does not explicitly include school feeding linkages. Profiling of farmers is still progressing at a low pace as some of the stakeholders who have done the exercise before are reluctant to share information. The project team and MAFSN continue to capture relevant farmers' information to inform project activities.

	annual events to facilitate discussions between buyers and sellers/farmers and form linkages where possible. Market days for farmers to bring produce to a wide range of buyers and engage for continuous supply while also sharing experiences with the other farmers. To facilitate aggregation of the marketable surplus, the project worked with the Department of Cooperatives in the MTISBDT to form farmers' cooperatives: six have been successfully registered while four have been registered as associations/organizations.	Most of the farmers targeted by the project were not producing surplus and could not make it to the markets. However, following trainings provided with support from the MAFSN, improvements in production rate have been seen – more farmers can be able to participate in market access activities. Far more farmers' sensitizations and trainings are needed as there is still much reluctance to join farmers' groups by some due to previous experiences (incl. trust issues among farmers).
Market linkages support to cottage industries for women, particularly handicrafts, using sustainable harvesting of grasses used for ecosystem regeneration (under Output 3.1.2), as well as sewing	In collaboration with the Departments of Marketing and that of Nutrition from the MAFSN, the project conducted a capacity needs assessment and basic training for 389 cottage members from groups in the districts of Mafeteng, Mohale's Hoek and Quthing. This informed the training programme that is currently underway for the cottage groups. To-date, a total of 374 cottage group members (have been equipped with skills on business management, product pricing and marketing, group governance and group dynamics as well as record keeping. It is anticipated that the groups will tend to manage their activities better as they apply the learnt skills. As the trainings continue, the project will continuously monitor the utilization of the acquired skills and their application in daily group activities.	NFI for cottage groups were not procured. This was to ensure that the relevant assessments and trainings were completed before such support could be afforded to the groups. However, requests for these are currently being done.
Leverage opportunities to link farmers to existing rural finance / micro credit programmes.	The project in collaboration with Department of Cooperatives trained groups aspiring to follow fund management cooperatives. These are ongoing and will work as micro credit financiers for other smallholder farmers in the communities.	Engagement with banks has not been done for access to micro credit, as farmers' trainings on agribusiness skills and book/record keeping were ongoing and formed the base for the financial inclusion activities.

Capacity strengthening of farmers	Training on apiary (95 farmers trained in basic beekeeping F=58, M37)	Currently, only 10% of attendees are youth. The goal is to involve more youth and women in initiatives like this one, particularly because apiary presents an untapped market with organic products that require less effort to manage.
	Training on orchard management for 55 participants (F42, M13)	Nursery establishment training in the catchment areas has not been achieved and no nurseries have been established due to delayed procurement process.
	Training on integrated pest management (F59, M101)	The training equipped farmers with skills to avoid the use of chemicals and instead implement safe pest management methods. Pest outbreaks pose a significant challenge in crop production and have led to a decline in product quality
	Training on basic first aid and fire management for 137 participants (F95, M42)	This training is still on-going. Other remaining project sites will be trained as well in the coming months
	Training of herders on range management	
	Onsite training provided are on breastfeeding, Nutrition and hygiene, cookery, and food groups to 339 participants (F281, M58)	
Partnerships	Establishment of 223 nutrition clubs with the SADP project	Nutrition clubs have made a significant impact on addressing community food and nutrition challenges. Members of these clubs support each other primarily in food preservation, which helps rural communities have access to food beyond its typical season.
Capacity to government	Establishment of a tree seed bank	
	Environmental and Social safeguarding training for government staff and WFP	
	Revival of 3 government tree nurseries through the purchase of tree nursery equipment	These tree nurseries will produce the indigenous forest trees which will be planted in the project sites
	Supported staff training for Dept. of Soil and Water Conservation on latest land management techniques.	
	Supported the training for the Department of Forestry staff on forestry-related activities	

Lessons learned: The Cash-Based Transfer (CBT) was planned to occur for three years of the four-year project duration. The lack of CBT has significantly impacted progress at the communal sites. Although the CBPP and ongoing sensitizations effectively communicated the project's objectives to the communities, in the Mafeteng district, where agricultural activities have declined, CBT became a critical livelihood mechanism rather than just a periodic relief during the lean season. The communities began to view CBT as a form of employment, and as a result, they were less willing to participate in project activities voluntarily when no transfers were made. Consequently, many communal activities came to a standstill in the absence of cash transfers in Mafeteng district. This experience highlights that the communal approach is not universally applicable; some beneficiaries prefer individualized approaches, particularly for agricultural activities. In Phase II, the project will strengthen SBCC efforts as well as ensure participation of communities in the development of the exit strategies that will allow for smooth handover of project interventions to community management. Intensive fodder planting is essential to alleviate the overstocking and overgrazing in already degraded rangelands. The current practices, including the burning of rangelands by herders at the beginning of spring to promote rapid fodder regrowth, exacerbate the problem. To address these issues, increased sensitization for herders and livestock owners is necessary to reduce rangeland degradation. Additionally, there is a need to build the capacity of small-stock farmers to produce their livestock feeds. Although the project supported rural communities with the purchase of pigs, free-range poultry, and rabbits, they faced challenges in accessing animal feed due to travel costs and the high cost of feeds. Lastly, off-farm activities should be promoted as part of the climate-change adaptation strategy.

Annex 3. List of stakeholders consulted at the national and district level

Institution	Name	Position	Gender
National Government			
Lesotho Meteorological Service (LMS)	Mr. Mokoena France	Acting Director	Male
	Mr. Charles Tseole	Senior Meteorologist	Male
	Ms. Malehloa Jockey	Meteorologist	Female
National Climate Change Committee (NCCC)	Mr. Molefi Phaqane	Chair of NCCC; working in Ministry of Local Government	Male
NCCC	Mr. Khathatso Maraisane	NCCC Member: National Curriculum Development Centre, Ministry of Education and Training	Male
Disaster Management Authority (DMA)	Mr. Reatile Elias	Chief Executive Officer	Male
	Mrs. Mamonaheng Manoto	Disaster Management Officer	Female
Ministry of Environment and Forestry	Mr. Polao Moepi	Principal soil scientist	Male
	Mr. Manti Makha	Range management officer	Male
	Mr. Mokone Kheekhe	Range technical officer	Male
	Mr. Mohlalefi Sethunya	Senior Forester	Male
	Mrs. Marapelang Makhabane	Forester	Female
Ministry of Agriculture and Food Security (MAFSN)	Ms. Makamohelo Semoli	Director: Department of Nutrition & Home Economics	Female
	Ms. Mamatsepe Matsepe	Nutritionist: Department of Nutrition & Home Economics	Female
	Mrs Kefuoe Thakabanna	Marketing Manager: Department of Marketing	Female
	Mrs Nothembile Nobala	Senior Marketing Officer: Department of Marketing	Female
	Mrs Makopoi Maketela	Senior Marketing Officer: Department of Marketing	Female
	Ms Thuso Molapo	Senior Marketing Officer: Department of Marketing	Female
	Dr Lehloenya Lehloenya	Director: Department of Livestock	Female
	Dr Bataung Kuenene	Chief Research Officer: Department of Agricultural Research	Male
Projects within GoL			
LMS/GEF/UNEP Early Warning Phase II Project	Mr. Mosuoe Letuma	Project Manager	Male
	Dr. Timothy Ferreira	Chief Technical Advisor	Male
Improving the Adaptive Capacity of Food Insecure Populations in Lesotho (IACoV)	Mr. Nkopo Matsepe	Project Manager	Male
	Mr. Kuroane Phakoe	Component 1 LMS early warning expert	Male
	Ms. Rorisang Kulubate	Component 2, Communication expert	Female
	Ms. Matoka Moshoeshoe	Component 3, Public works expert	Female
	Ms. Ntebaleng Thetsane	Component 3, Smallholder support expert	Female
	Mr. Motlatsi Pampiri	Finance Associate	Male
	Mr. Lekeli Motsumi	M&E Officer	Male
Regeneration of Landscapes and Livelihoods (ROLL) (IFAD/GoL)	Mr. Mofihli Motsetsero	Project Coordinator	Male
	Mr. Tankiso Lechesa	Component A Manager	Male
District Government			
Mohale's Hoek District Administration and other District SHs			
Ministry of Environment and Forestry (MEF)	Mr. Habang Kotsoro	Senior District Range Management Officer	Male
IACoV	Mrs. Nthomeng Mahao	Project Field Officer	Female
IACoV	Mrs. Matoka Moshoeshoe	Public Works Expert	Female
MEF	Mr. Tsepo Teleki	Forester	Male
LMS	Mr.Tanki Mohale	Technical Assistant	Male
MEF	Mr. Motlatsi Pheko	Senior District Conservation Officer	Male

Institution	Name	Position	Gender
MEF	Mr, Ntsitsa Sempe	Range Management Officer	Male
MAFSN	Mr. Lekhetho Tlali	District Extension Officer	Male
Ministry of Gender	Mrs. Nonkosi Mothala	Principal District Gender Officer	Female
IACoV	Mr. Kuroane Phakoe	Early Warning Associate	Male
MEF	Mr. Eti Matlabe	District Coordinator	Male
MEF	Mr. Relebohile Ramokoatsi	District Environment Officer	Male
Ministry of Local Government	Mr.Litsoeneng Tiheli	DA's Office	Male
National Security Services	Mr. Tebello Lehata	Intelligence officer	Male
Ministry of Health-DHMT	Mr. Thabang Ramohohlelo	Assistant Finance Officer	Male
Disaster Management Authority (DMA)	Mr. Lebohang Moletsane	District Disaster Manager	Male
IACoV	Mr. Tsoanelo Oliphant	Project Field Monitor	Male
Lesotho News Agency – Ministry of Communications	Mrs. Mampeli Mojakhomo	Reporter	Female
Thaba Tseka District Administration and other District SHs			
District Administration	Mr. Tlafi Mphafi	District Administrator	Male
Food and Nutrition Coordination Office (FNCO)	Mrs. Majakobo Mohapi	District FNCO	Female
Lesotho Red Cross	Mrs. Matsebiso Motjolopane	District Secretary	Female
World Vision	Mrs. Mabonolo Moshabesha	Project Assistant	Male
Social Development	Mrs. Rethabile Leburu	Social Worker	Female
Local Government	Mrs. Mamathebeli Ntsene	District Officer	Female
Ministry of Agriculture	Mr. Molato Machaea	District Extension Officer	Male
Ministry of Environment and Forestry	Mrs. Mamabitsa Makara	District Coordinator	Female
Paray Hospital	Sister Glara	Hospital Administrator	Female
Paray Hospital	Mrs Mabatho Makoa	Public Health Officer	Female
Lesotho Correctional Services	Mr. Theko Mabaso	Officer Commanding Thaba Tseka	Male
Mafeteng District Administration and other district SHs			
District Administrator	Mr. Tlolotlolo Tlolotlolo	Assistant District Administrator	Male
MAFSN	Mrs. Manthati Tohlang	District Extension Officer	Female
MAFSN	Mr. Tlali Polao	District Extension Officer	Male
MAFSN	Mrs. Mamoabi Lechesa	Agriculture District Coordinator	Female
MAFSN	Mrs. Masekhothali Lekhotsa	Area Extension Officer	Female
DMA	Mrs. Mamonyaku Koloti	District Disaster Manager	Female
MEF	Mr. Majoro Khoanyane	District Coordinator	Male
Farmer (Apiculture)	Mrs Julia Mafike	Managing Director	Female
Farmer (Horticulture)	Mrs. Lipuo Nkholi	Chief Executive Officer	Female
Quthing District Administration and other district SHs			
District Administration	Masitha Ntsimane	Planning Officer	Male
DA	Mr.Sechaba Monakale	District Coordinator	Male
MEF	Mr.Tseliso Mofubelu	Forester	Male
DMA	Mrs. Manaha Posholi	Disaster management officer	Female
Likhoele Farming Association	Mr.Salang Lethena	Farmer	Male
Tiping Farming Association	Mrs. Malebohang Letuka	Secretary General	Female
MAFSN	Mrs. Mabohlokoa Malea	District Extension Officer	Female

Institution	Name	Position	Gender
MAFSN	Mr. Nkotso Makeka	Planning Officer	Male
MAFSN	Mrs, Matlotlotliso Mahomo	Area Extension Officer	Female
MAFSN	Mrs. Makabelo Makhasuoe	District Nutrition Officer	Female
Development Partners			
Food and Agriculture Organization (FAO)	Mr Mokitinyane Nthimo	Assistant FAO Representative	Male
United Nations Development Programme (UNDP)	Mr. Limomane Peshoane	Programme Officer	Male
	Mrs. Nthabiseng Majara	UNDP/GEF Small Grants Programme	Female
World Food Programme (WFP) Lesotho Country Office	Ms. Aurore Rusiga	Country Director	Female
	Ms. Emily Doe	Deputy Country Director	Female
	Ms. Lineo Sehlooho	M&E Associate	Female
	Mr. Mokotla Ntela	VAM Officer	Male
	Mrs. Makhauta Mokhethi	Programme Policy Officer: Nutrition	Female
	Mrs. Tanki Sekalaka	Budget and Programming Officer	Male
	Mr. Napo Ntlou	Programme Policy Officer: Crisis response	Male
World Vision (WVI)	Mr. Tseliso Ncheke	Grants Manager	Male
	Mr. Kalele Makheera	Livelihood and Resilience	Male
Cooperatives			
Lesotho National Farmers Union	Ms. Mamolise Lawrence	President	Female
Private sector			
Standard Lesotho Bank	Mrs. Lerato Komiti	Branch Manager Thaba Tseka	Female
Lesotho Highlands Development Authority (LHDA)	Mr. Tsepo Ramokuena	Terrestrial Biologist	Male
	Mrs. Mamello Mapheele	Aquaculture	Female
Academia / Research			
National University of Lesotho, Department of Soil Science and Resource Conservation	Prof. Makoala Marake	Head of Department	Male
Lerotholi Polytechnic, Faculty of Water Engineering	Dr. Liphapang Khaba	Senior Lecturer	Male

Annex 4. Key points from national and district stakeholder discussions

National Government
Lesotho Meteorological Services (LMS) [LMS is the Designated Authority for the Adaptation Fund]
• Institutional structures: The NCCC was an outcome of the EWS Phase I and an EU project, to have a coordination structure and platform for sharing information, and one which all projects would go through. There are 3 sub-committees: Outreach and AR; Finance; and M&E. The recent GCF country programme process used the NCCC and developed an Advisory Group. However, the NCCC is not legally established, but LMS is advocating for this. The CC Act, which is being developed under the Capacity Building Initiative for Transparency[181] (CBIT) project, will formalise structures. Time frame of 3 years. The NCCP also recommended establishment of local CC committees. • Milestones achieved under C1 of IACoV: Within LMS, the HPC and AWS, laptops for technical staff, data and software, several trainings on this, PyCPT introduced, map rooms and climate predictions, AR to range of people on climate services value chain. LMS team – co-production of advisories with DAOs – important and needs to be upscaled. Agromet, hydromet. DMA needs to have people who understand meteorology. Constraints: in LMS Applications section, there is only one forecaster, who also does the seasonal forecast, and one IT person. Need to capacitate this section. Could start with hydro-, agro- and health. Perhaps look at GCF or other funding window – to bring about paradigm shift for operationalising LMCS. There is only one agro-meteorologist in DoA who works in the research department and is overloaded. • Under C2: Public awareness very critical for Lesotho, ongoing training needed. Managed to train 600 schools. Implementation of NCCCS. • Under C3: Land restoration efforts – how best to conserve soil? • Possibilities for way forward: (i) AR conducted in a different way that could generate revenue – e.g. annual marathon – run for environment / climate – did similar thing for Environment Day 2 years ago. T-shirts with messages, invite organisations to host stalls post-race. Comrades Marathon – companies pay R16,000 to host a water point. Initial support would be required, but once popular, would generate revenue, then could channel money to adaptation activities. Many companies want to support environmental causes. E.g. annual walk – Moshoeshoe. (ii) River protection in Lesotho – structures to capture fertile soil as rivers change course. (iii) Opportunities for training – few people to do a

[181] The Capacity-building Initiative for Transparency (CBIT) supports developing countries to build institutional and technical capacity to meet enhanced transparency requirements as defined in Article 13 of the Paris Agreement. The CBIT plays a key role to assist countries with tools and training as they prepare their Biennial Transparency Reports (BTRs), due by December 2024.

degree – capacitate forecasters and people working on CC. Training on maintenance and repair of AWS. (iv) Steps to increase accuracy of the forecast. (v) possibility to work on capacity development of the Observers in the districts. This is an important CC corps at the sub-national level. Need to upskill them in that regard. Build on basic package of WMO training for Observers in non-major stations. What is the future of the Observers, given technological change and automation? Need detailed assessment and development of career trajectories. Investigate Zambia training of Observers to advise communities, do soil moisture testing, advising on varieties to plant, and on health issues?

Disaster Management Authority (DMA) and Ministry of Social Development

- The DMA (under the Office of the Prime Minister) is in a process of transition, with a new CEO (1 month in the job). The focus is on building sustainability and government ownership. There is a need to re-focus to the central policy making, planning and coordination role, as the DMA had recently drifted into disaster response. 5 – 6 policy instruments (National Resilience Strategic Framework (NRSF), DRR Policy, DRM Plan, DRM manual, EW Strategy, National DRR Strategy) are still in draft form, which needs to be remedied, especially for the NSRF. WFP is currently assisting the DMA to review the law by December 2024. International organisations fund the largest chunk of implementation, with the recent vulnerability assessment (VA) 73% funded by donors. One of the Sector Technical Working Groups is on Food and Logistics – this included GoL and UN agencies.
- DMA provided a detailed explanation of the AA process, indicating strong ownership and appreciation for the achievement, which they considered very useful, and noting that the AA Plan was well implemented in 4 districts. The AA National Technical Working Group (includes DMA, LMS, IACoV, other?) was established and met with the DDMTs, which include the Government ministries, NGOs and UN agencies with presence in the districts. Sector groups were developed (agriculture, water, health) and identified potential impacts, how to respond, what to do to be better prepared – i.e. the anticipatory actions. The National TWG consolidated this as a national AA Plan, with a further round of iteration between the districts and national. This was validated in April 2023. The AA Plan secured funding via WFP from the EW For All fund. This situation will need to be remedied – GoL will need to look into how to fund this itself, the African Risk Capacity (ARC) facility is being explored.
- The first trigger was initiated in July 2023, in response to the early findings of LMS on the seasonal forecast indicating a strong El Niño effect, after which each district developed its own implementation plan for response. Four AAs were common to each district. Around 60,000 people were reached through cash-based transfers, provision of agricultural inputs, and dissemination of early warning and early action messages. A gap was the failure to include the logistics team when the calendar of actions was developed, which led to delays in some of the responses. When the team checked with communities who had benefited in Jan/Feb 2024, it found a large impact e.g. livestock drinking ponds, rehabilitation of water systems, vegetable production. However, provision of water was delayed in one district because of delays in procurement. It was observed that people did not only use CBT for food but for entrepreneurial livelihood sources too. An area for improvement is wisely targeted seeds provision.
- FbF map rooms were developed for drought, using historical data starting from 1981 – could these be expanded to cover multi-hazards? Additional training is needed in manipulation of the platform. After receiving the seasonal forecast, an EW was issued for drought in 2023, with all the districts being able to use this. Also questions around access rights to map rooms – DMA (and LMS) needs unlimited access to lifesaving information.
- One of the AAs implemented was on CBT, with the NISSA database (currently being updated using World Bank funding) used for targeting. This allows visibility of those in programmes and those not, making it possible to see who could be included in top-ups and where to have horizontal expansion.
- Roles and responsibilities: The DMA felt it should have ownership of the National Climate Change Communications Strategy (NCCCS) developed under C2 of IACoV, as one of the interlinked components of disaster management is communications. This indicated the need for additional sensitisation on the part of the PMU and LMS on the breadth of scope of the NCCCS, which goes far beyond communication for EW and disaster response. DMA mentioned that there should be no need to advocate for the early release of the seasonal forecast, and that this might require institutional rearrangement for greater harmonisation.
- Sustainability: DMA noted that additional effort is needed on sustainability of AA, which the GoL has not yet paid that much attention to. However, this can be remedied as AA gets included in GoL policy. Induction on AA was carried out in the six districts in which AA was not implemented under the project, and some DMA staff from those districts assisted in the 4 implementation districts. Additional cross-district exchange and extension would be useful. The DDMTs and VDMTs will need to play a stronger role in Phase II, and the Social Development area of work be better integrated / strengthened.

National Climate Change Committee (NCCC) [Chair from Ministry of Local Government, and member from Ministry of Education and Training National Curriculum Development Centre (NCDC)]

- The NCCC was established in 2013 and is a multi-stakeholder structure consisting of Government, NGOs, Youth, CBOs, private sector, etc. LMS heads the committee and provides the secretariat. The NCCC is well placed in terms of resourcing to carry out its oversight function – however, it is dependent on projects for funding. The importance of visionary leadership was stressed and the IACoV PM and PMU team were praised for this. Community councillors can also play this role. Collaboration and integrated planning are needed – IACoV tried to strengthen this through the district Project Implementation Teams (PITs). LoCAL project started late in Lesotho – in 2021, not in 2017 as had been hoped.
- C1 of IACoV: together with EW Phase II project, was instrumental in providing the right, accurate, information at the right time to the sectors – agriculture, forestry, community councils. AWS were not vandalised as SHs had been sensitised beforehand on the importance of AWS for EW.
- C2 of IACoV: Both participants are on the technical team for communication and stressed the need for awareness raising for herders and women. Public gatherings had been called by the chiefs. Herders were reached in 5 districts – in the highlands they are aware that things have changed but cannot attribute this to human-induced climate change. Additional awareness raising (AR) needed – herders have own beliefs and thought that CC would come and go. They need deeper AR, alongside the owners of livestock herds, and more training on adaptation and mitigation – to overcome the problem of them perpetuating environmental vandalism – destroying the wetlands, burning the rangelands. Need to integrate religious knowledge and other forms of knowledge; could use storytelling – some herders are older men – could be 60 years old. Some herders own livestock – when they graduate in this way, they may discourage their children from getting an education. Owners of some livestock herds had agreed to buy cell phones and solar panels for herders.
- C3 of IACoV: Been working with local government on establishment of bylaws / regulations for maintenance of assets, and law enforcement agencies.
- The NCCC has been pushing for the integration of climate change into the educational curriculum in terms of both the Lesotho Basic Education policy and the National Climate Change Policy (NCCP). Under IACoV, has trained teachers and inspectors in 3 districts; still 4 centres to be trained in Quting, not yet done Mafeteng. Want to extend training to other districts. Follow-up training is lacking. Want to encourage teachers to start CC clubs in schools, which will extend to communities so that youth are involved. Science competition was held in Mohale's Hoek, a music competition in Quting, debate competition in Mafeteng and Qacha's Nek. Teachers' toolkit developed under IACoV is being used in primary and high schools. IACoV had done training on CC at schools and encouraged Ministry of Forestry to provide trees – collaboration example.
- Impacts of climatic changes: Social aspects e.g. women are exposed to GBV when they go to collect wood, longer distances. Teenage pregnancies, early marriages, and children not going to school. A key issue is the impact of climate change on migration – in the highlands, many villages are abandoned and some schools too.
- Possible ways forward: Competition to incentivise herders on environmental stewardship; they are traditional people and have indigenous knowledge – e.g. if they see birds fly in one direction, this means winter is coming. They are exposed to harsh weather conditions and do not have good protective clothing, project could advocate for this, owners of livestock herds do not care. Herders use dung and shrubs for heating. The PM raised the possibility of commercialisation of dung briquettes as an IGA for herders – which could be discussed with the Forestry department.
- Sensitisation and training: In addition to AR for herders, capacity development is needed for the NCCC e.g. on carbon capture. The tertiary stakeholders – decision makers – are not sensitised, are reactive and not proactive. While the NCCP talks of the integration of CC into national, district and local level, this is proceeding at a very slow rate. AR normally focuses on parliamentarians but forgets about the law enforcers and technocrats in the ministries. Support NCCC to develop annual action plan, which would include advocacy. They already planned to meet with the Office of the Prime Minister, to encourage him to take a leadership role on CC- e.g. mention in veery speech; and with the PS, Ministry of Environment. NCCC has a programme of action to elevate visibility nationally and wishes to include road shows throughout the country; more engagement with other UN agencies. Prioritise education and AR amongst local authorities – councillors and chiefs, who are close to farmers and schools, are on school boards, and are managing the

rangelands and water sources. More competitions (including on CC business, with the private sector), greening of schools, and practical actions at schools – this was done under RVCC project – in Mohale's Hoek, provided shade nets, equipment, trees. Teachers were trained on CSA through FAO – gave tools and water tanks. Need to train principals, who are the technocrats at schools, and the curriculum developers; bring in CC into ECCD. Work with other institutions than NUL. Non-formal education sector is very important e.g. schools for herders, train teachers in non-formal institutions. Actions to overcome any vandalism problems at schools – sensitisation of churches, teachers, parents, to come together on this.

Ministry of Environment and Forestry, Departments of Range, Soil and Water Conservation, and Forestry

- IACoV has enabled rangeland rehabilitation, largely through removal of alien species (brush control), setting aside rehabilitated areas (in indigenous way), and developing Grazing Management Plans in some community councils – these often include provisions for 2-month rotation. Communities have been capacitated on fire prevention and the effect of burning – which is done as people want greener grasses earlier. A baseline was conducted, trainings of herders and grazing associations carried out for rangeland management. The GIS staff in Department of Soil and Water Conservation are supporting on the NVDI. Could use new technology for M&E, herders have smartphones.
- Seed bank: Seed bank facility was established to promote indigenous forestry (and other) species, needs further capacitation especially with respect to tissue culture technologies. Can there be assistance from DoA Research? Dept. of Range would benefit as they used to buy grass seeds in South Africa and plant these in e.g. Mokhotlong, where they do not survive. Need to collect and disseminate local seeds. Dept. of SWC could also benefit from this for marginal lands seeding.
- Orchards and water: Communal orchards were established and each HH was given 10 trees. Value of peach trees for business opportunities – drying and canning. Water availability is one of the root causes of vulnerability. More quality assurance measures are needed for soil and water conservation measures.
- Challenges: Staff turnover in certain areas. Shrinking government budget – drastic decrease in fato-fato budget from M150 m in 2017 to M5 m in 2024. Resources are needed for implementation and the situation is very different in the districts where there is no IACoV. Tracking impact is difficult – people in rural areas cannot tell you how many bags each section of their fields produced, can tell you the total number of bags. Transporting trees was problematic, incorrect vehicle and low rates of survival. Areas in TT should be fenced off first before planting trees.
- Coordination: Need for greater collaboration across departments and ministries – for example, so that water can be accessed for irrigation. Proper planning is required, as opposed to rushing around chasing people. Joint planning between ministry of Agriculture and Ministry of Environment and Forestry. Dept. of SWC stressed that yearly plans need to be synchronised so that advice can be provided in time on soil suitability and siting of water tanks.
- Youth: Critical to integrate youth – need to go beyond former vulnerability targeting. Monitoring results show youth are not interested. However, need to go beyond old approach to labour-intensive activities to bring element of innovation. Need to understand youth and allow them to bring their ideas forward, categorise them in terms of interest. Youth targets needed.
- Possible ways forward: Continue with training of communities, to bring about required mindset change. Include public education on NRM, bringing science to the people – enhance the knowledge of people at local level. CBPP approach under IACoV worked very well and could be scaled out. Integrate the results of studies into the public works programme and continue with research – community-based action research, and M&E. Include soil science and moisture sensors. Planting at HH, communal and schools, accompanied by mindset change. Multi-purpose trees. Willow (muduani) is good tree to plant along river banks – not indigenous but does not invade, stabilises soil, provides shade. Local bamboo can be tried in deep gullies – pilot in Quting. Animals eat it. Olive – resilient, value of market from oil and fruits – suitability study conducted in Mafeteng.

Ministry of Agriculture, Food Security and Nutrition, Department of Nutrition and Home Economics

- MoA is the champion of nutrition-sensitive programming. There is a lot of appreciation for IACoV's achievements. The MoA is very glad that TT will be included in IACoV Phase II as there are severe food and nutrition issues there.
- AR: IACoV did have training on CC of herders in general, on how to adapt, how to protect wetlands, but this was only a 1-day training and so not effective in the long term. Nutrition-sensitive interventions and sensitisation for men is needed, so they understand the importance of vegetable and fruit production. Also, many women migrate for work, leaving children behind, so need a strategy to engage the men in nutrition. Nutrition surveillance: Lesotho lacks nutrition surveillance system, even with Covid it was a challenge to come up with the data.
- PHL and IGAs: Reducing PHL is important step so can upscale preservation of foods. This did start with IACoV but did not meet expectations – progress was made on HH food security and nutrition but not on sales of produce for increased income. The Dept. of Nutrition and Home Economics can assist communities to make their own fuel-efficient stoves. Much is done at community level through extension officers – e.g. use of waste – plastics and paper to make products that can be sold, such as plastic mats, shoes, vases, etc. Mainly target youth and women. About to demonstrate Wonder Bags and outdoor ovens, but IACoV only covers a few women – was told that only 200 women would be provided with labour saving devices. MoA can train women to produce their own. There is a huge market for Wonder Bags. The District Home Economics Officers are very good and can train colleagues.
- Market access: To deal with the operational bottleneck IACoV experienced in terms of market access, the project should engage more strongly with the MoA Department of Marketing. See MILCO (Made in Lesotho Cooperative) shop in Maseru started by NUL Innovation Hub, at Sifiko Complex, which assists with quality control and branding. Regular Market Days works – scheduled monthly in each district. One of the nutrition clubs who was present at one of these was given a business opportunity. Could link with AR, competitions, theatre groups, etc., invite some community leaders and influencers to make it more appealing. Not yet time to look for international market because of food insecurity. Could do so for crafts. WFP mentioned that IACoV planned to have a holistic boot camp to showcase what project has done re SWC, production, and cottage industries. Does not yet have good market access stories.
- Institutional and extension: The MoA intends to establish nutrition-sensitive platforms in the districts. The Chiefs should be on this, or they will not be taken seriously. The King's position as AU Nutrition Champion helps the Chiefs to take this up. The MoA Nutrition has Area Technical Officers for Nutrition in the Resource Centres (RCs). In 40 out of 68 RCs. In the sub-centres, there are Agricultural Assistants. TT has only two ATOs out of 7 RCs. There are ongoing talks with the Minister of Agriculture to increase the number of extension staff. Complement for a RC is: Nutrition, Crops, Horticulture, Livestock, Irrigation, with the Area Extension Officer (AEO) as manager. In some ARCs, the Agricultural Extension Officers, who are generalists, have to act as nutritionists. In Ha Majara, community members said they had not seen extension officers for 10 years. The MoA is actively working on this, and is also training lead farmers in some areas to deal with lack of extension officers.
- Ways forward: increase the technologies employed (for the market, e.g. on food preservation) and the scale of IGAs and numbers reached. Assist MoA to reach the more vulnerable communities up in the mountains, herders, etc, on a regular basis. Capacity development of MoA nutrition team on food preservation, etc. Harness the position of King Letsie III as African Union Nutrition Champion. Systems and tools to gather data for monitoring – e.g. tablets. Could have a tablet in each Resource Centre for data collection. This could still be done in Phase I for the 3 southern districts, might also function as a small incentive to encourage officers to stay in Resource Centres.

Ministry of Agriculture, Department of Livestock Services

- A meeting was organized with 5 technical area specialists led by the Director – Livestock Services. The team highlighted that livestock and waste management are to be prioritized given that they are among the largest emitters of GHG in the country. The team suggested that farmers could be supported to manage the waste or even form a biogas plant as a source of livelihoods or for composting purposes where the energy generated could be used to some extend to replace the use of firewood or as manure respectively. Although the team highlighted that there is a manual on waste management, it was never validated or used – so there may be a need to review such a document and popularize/disseminate. Again, it was highlighted that Lesotho as a country does not have an adaptation strategy which could be a guiding document for all adaptation programming for the different sectors including the livestock sector. The strategy would enable the country to take stock and be able to identify grey areas easily.
- As another source of livelihoods, youth could be engaged in fish farming where their capacity in this type of farming could be strengthened. The project could also procure some equipment including water quality testers, aerators, water filters and black shade nets/plastic (solely for weather adjustment) to give to groups of young people. Considerations can

be made depending on whether there is scarcity or abundance of water in the area. The department would provide seeds and technical skills in the implementation of this livelihood intervention. • In enhancing efforts of poultry farming by SHF, the project can help promote indigenous chicken rearing by rural households. In collaboration with the department of livestock services, the project could help with characterization of the indigenous chickens and provide incentives to those individuals that still have them. Then the project could work with DLS in improving the genetic makeup/traits of the same chickens so that they may grow faster while preserving the default character. Studies in this area are available – but a desk review could be used to inform the processes. Feed production and fowl feed mixing may be an area of interest – with communities' livelihood sources being livestock, it is pertinent to ensure access to feed in the midst of climate change. Dual purpose chickens to be provided to households – but farmers and extension workers need to be capacitated to ensure proper management of the chickens. • Capacity strengthening in the areas of climate resilient practices, measurement of GHG emissions (baseline/midterm/end term), the construction/setting up of climate smart livestock infrastructure, processing and pasteurization, dairy goats (to also help curb high levels of malnutrition) and other new technologies can be prioritized by the project.
Ministry of Local Government, Chieftainship, Home Affairs and Police: Lesotho Police Services Child and Gender Protection Unit (CGPU)
• Inter-Agency Coordination and capacity building: There is weak coordination between the Ministry and other stakeholders, including NGOs and international organizations, to enhance the impact of resource from different support streams. Need for capacity building among stakeholders to effectively manage and utilize resources. • Discrimination: Highlighting gender-based discrimination affecting children, including unequal access to education and resources based on gender particularly in Thaba Tseka and other mountain districts. Early Marriage: The overemphasis is on the need to urgently addressing the prevalence of child marriage and its impact on girls' education, health, and overall well-being. • Gender Stereotypes: Efforts to challenge and change harmful gender stereotypes and norms that impact children's development and opportunities are necessary. • Monitoring and Evaluation: Suggested strengthening monitoring and evaluation mechanisms to better track the impact of resource allocation and make data-driven decisions. • Abuse, Neglect and Violence Against Children: Concerns about high rates of child abuse, neglect, and exploitation. Emphasis on the need for stronger measures to prevent and respond to these issues. Issues related to physical, emotional, and sexual violence against children are often neglected. There is often a call for better protective mechanisms and support services.
Ministry of Agriculture, Department of Marketing
• The Marketing Manager led the discussion with three other senior marketing officers. The team felt it is important to continue and expand the use of round-table discussions/dialogues, market days, and buyer/seller meetings as tools for market linkages. However, following the piloting of the contract farming by DOM, the project can build on the experience and expand/put to trial the tool to promote market access – however, there would be need to raise awareness such that more farmers could uptake the initiative. • With most of the legal instruments guiding the implementation of agricultural marketing initiatives, there is a dire need to support formulation of policies and strategies for commercialization of agriculture (as a key govt priority) as well as promote local purchasing while also aligning the procurement guidelines to the other pro-poor strategies aiming to promote local purchase. • While commodity marketing is being improved, it is also vital to engage with relevant departments to support the improvement of the commodity standards/quality esp. for the priority value chains where markets are available. The homegrown school feeding is one biggest market that requires the department to re-strategize and engage more with the ministry of education and training – even support the enabling environment to be conducive for the SHF to access a fraction of this market. • Support innovative ways that enhance market access – there is a e-marketing application that requires support – review, enhance and promote this app whilst supporting engagement of private sector for the sustainability of this application. The e-marketing platform is a good tools that provides for a comprehensive list of services including agriculture seasonal calendar, forecasting information, crop care and communication channels including Whatsapp and SMS. • Support the capacity of the DOM and private sector in implementing/managing the livestock auctioneering process as a strategy to relief the rangelands while improving on the household economy. • Continuously capacitate SHFs in the areas of business management, agribusiness/commercial farming and agricultural marketing. And continue support to aggregation systems and infrastructure for SHFs. This will enhance efforts in managing postharvest losses across the different value chains especially at harvest, transportation from field as well as during storage.
Lesotho Correctional Services (Thaba Tseka)
• Climate change exacerbates health risks for inmates and staff. Heatwaves, for example, lead to heat-related illnesses and even deaths, particularly in facilities without adequate cooling systems or in regions experiencing unprecedented heat. Changes in precipitation patterns affect water availability, impacting hygiene standards and access to drinking water in prisons. Additionally, disruptions in agricultural systems due to climate change affect food supply chains, potentially leading to food shortages or changes in diet quality for inmates. • Very little support is received from the relevant line ministries and the academia to educate prisons on climate change and agriculture. Prison inmates need to be trained in climate change, farm skills, cottage and receive certificates to transform and reintegrate them into society. • Environmental stressors linked to climate change, such as resource scarcity or displacement due to extreme weather events, can contribute to increased tensions among inmates and between inmates and staff. This can lead to higher levels of conflict and security incidents. • Since 2016 agriculture activities in Thaba Tseka prisons have been deteriorating because of climate change. Unlike in previous years when the institution could produce enough food for consumption, they are compelled to buy all the food stocks in the local markets. Adapting to climate change impacts can strain prison budgets. Repairing infrastructure after weather-related damage, installing climate control systems, or implementing. In Lesotho prisons, offenders are released from prison after serving their prison terms, paying fines for their criminal offences, paying bail and or being granted amnesty. However, upon release from prison, offenders are confronted with a range of challenges such as finding employment and shelter, food insecurity, and lack of family and community support and thus they recidivate[182] and are re-incarcerated. Synergies in adaptive measures/ social behavioural change opportunities to leverage on • The rehabilitation programmes is designed to empower the prisoners to lead sustainable livelihoods upon release from prison. To improve the livelihoods, the programme is oriented to agriculture which is mostly preferred in Thaba Tseka district. • There are outreach programmes that are essential for addressing the specific needs of inmates, promoting rehabilitation, and preparing them for successful reintegration into society. These programs are done in collaboration between prison administrators, staff, community organizations, and government agencies to ensure comprehensive support and positive outcomes for inmates and their communities.
Projects located within national government
LMS/GEF/UNEP Early Warning Phase II Project [PMU located within LMS]

[182] Recidivism refers to the act of an individual who repeats an undesirable behavior after having been treated or trained to extinguish the criminal habits (McKean & Ransford, 2004).

- The project is currently nearing the end; shares Chief Technical Advisor (CTA) with IACoV; the two projects were designed for synergies (EW Phase 2 for rapid onset and IACoV for slow onset – drought) and share the same Project Steering Committee (PSC). Shared costs for procurement of High-Power Computer (HPC) and automatic weather stations (AWS). AWS sends data to HPC; coverage of rainfall stations still inadequate. At the moment, still downscaling information from large models.
- Although positive, there were limits to the impacts of the two projects if one considers WMOs EW for All initiative[183]; may need to upgrade HPC and additional AWS to enhance accuracy and include multi-hazards beyond drought. Discussions are underway re a possible EW Phase 3 project. Inclusion of hydrology was under development under EW Phase 2, but this needs to be expanded beyond the major basins. Introduced lightning and thunderstorm monitoring. The HPC could be upgraded to a level of nowcasting[184], which forecasts on a very short timescale of up to 2 hours. For this, a much tighter grid system is needed. Currently this is on 39 km, could have a 1 – 2 km grid. Possibly help GoL to update erosion map of country. Consider multiple function plants / legumes such as Mucuna pruriens – velvet bean – to control erosion and fix nitrogen in soil and as green manure cover crop, as in Uganda and throughout southern Africa.[185]
- Risk assessment / management system was not developed – need to strengthen response capacity of authorities and develop community-based risk management system. Capacity development at district system – of DDMTs, VDMTs, extension services needed prior to achieving greater dissemination of EW messages.
- Currently EW II is looking into improving skills in terms of temperature – if this is not resolved, may need to be picked up by IACoV. Component 2 of EW Phase II was supposed to capacitate other sectors (5) to take up the information and apply it – this has not been fully achieved. Agromet advisories remains a gap, there are no agromet skills in DoA. The Localised Integrated Climate Services for Agriculture approach has been used instead of PICSA – extension officers have been trained on this under WAMP.
- LMS representatives in the districts are the Observers, who sit within the DDMTs. There are two Observers in each major station, while other stations in district have at least one. Many are only Class 4 Observers with basic training (Class 2 is a forecaster). There was a programme to capacitate the Observers under Component 3 of EW Phase II – this was very simple, as students; maths skills are often not good enough. The EW II PM and IACoV C1 manager are instructors for the Observers. Observers in the districts take observations and gather primary data on loss and damage – this is at best at district level, not local. A mechanism is needed to attract them to stay. CLIMSA in Zambia – the well-trained community-level observers. It is important to invest in fully-fledged, iterative training.
- EW Phase II had an initiative with the National University of Lesotho (NUL), involving the Dean of Science. There is an extension course at NUL and an Agricultural College in Maseru with a good programme on market access in 3rd year that involves giving students capital to develop own market initiatives, along start-up lines. They are given M10,000 and need to return M15,000. Lerotoli Polytechnic launched a Bachelor of Engineering in Irrigation and Drainage in 2024.

Improving the Adaptive Capacity of Food Insecure Populations in Lesotho (IACoV) [PMU within the Ministry of Environment and Forestry]

- The IACoV project has achieved numerous outputs as detailed in the MTR and various project reports. The PMU team provided many details on areas in which success had been achieved as well as challenges experienced – not all of these are listed here, as space would not permit this. Suggestions were made on ways forward for Phase II which have been integrated into the Full Proposal. Please also see Annex 2 for key achievements of IACoV phase I.
- Regarding Component 1, the HPC and AWS were procured and installed, trainings held at different levels, accuracy of the forecast improved, the AA system developed and implemented.
- Regarding Component 2, the NCCCS has been developed and implementation is ongoing. The process is owned by LMS. Various CC AR competitions held, comedians engaged, films developed by youth groups. Joint AR was held with the EW Phase II project on the ground, in 2022/23. Suggestions for Phase II are to hold formal trainings for secondary SHs identified in the NCCCS; extend the operationalisation of the NCCCS at the district level – including re-energising / establishing the VDMTs, which where they exist are not trained and can play a vital role on LMCS, and in some cases DDMTs; capacitate influential people in the communities – champions from different socio-economic groups; to scale up the teachers' training across all 10 districts, with suitable partners; to do additional AR around the forecast and work on the findings of the indigenous knowledge study; to update the NCCCS using the key studies developed during the project, M&E results, as well as the final evaluation; and to use the action-oriented research to fine-tune implementation.
- Regarding Component 3, important to capacitate influential people in the communities – e.g. in Setoetoe, the chief is a commercial farmer and does train others, 15 smallholder farmers are already replicating lessons learned.
- M&E: Third staff member in the M&E position. IACoV had been doing a good job with process monitoring but not much understanding or capacity in the district technical teams with food security monitoring – especially data analysis and reporting. The district staff use tablets to collect data and the PMU analyses, but they should be doing the analysis at the district level. Refreshers needed on data analysis and reporting, and introductory programming of questionnaires onto tablet. M&E to feed back into project action not as good as it should be, requires training Government colleagues in the districts. Also need 6-monthly refreshers. Important to keep sensitising on knowledge management and lessons learning.
- Overall challenges included staff turnover in several positions, delays in procurement related to WFP procedures, and delays in commissioning some of the initial studies that were to serve as inputs into subsequent outputs. An example of the latter is the community perceptions and indigenous knowledge study that was to be completed in Year 1, and which would have been the basis for developing the NCCCS and the dissemination of climate services and early warnings. This was delayed as it was not possible to find a suitable service provider within Lesotho; however, the MTR recommended that suitable service providers should be sought beyond the borders in this case. A similar situation was incurred with the Climate Change, Food Security and Nutrition study (CCFS&NS), which was only completed in February 2023, and thus was not used to develop the NCCCS – however, annual reports from the WFP CO on nutrition were used. The PMU is now using the CCFS&NS where possible. Tertiary institutions did not understand what action-oriented research was, which delayed the start of that output. The non-cost extension will not be sufficient to implement the recommendations from the various studies. There are no CC focal points in the district government – this might not be the right way to go, rather capacitate influential people in the communities.
- Ways forward: Immediate work on agreement re roles and responsibilities between LMS and DMA, this can continue into phase II as well; support NCCC to strengthen capabilities and implement additional roles; programmatic approach to training, including on climate services and CSA for extension workers, possibly through NUL/Prof. Merake; constant clarification of forecast, especially in terms of probability versus amount of rainfall; scale up and out all components, and increase area rehabilitated under C3; many other suggestions made which have been synthesised into the project outcomes, outputs and activities as set out in the FP. Staff retention strategy for Phase II PMU.

Restoration of Landscapes and Livelihoods (ROLL) project [PMU within MEF, under the Department of Conservation]

- IACoV is considered one of the best projects, along with RVCC; ROLL takes communities to IACoV project sites and considers there is a lot they can still learn from IACoV, including on landscape rehabilitation and IGAs.
- Scope and funding: ROLL is working on 17 sub-catchments in 6 districts. Although it is a 7-year project, the coverage is insufficient to address the needs. ICM to enhance environment and thus livelihoods. Started with a big emphasis in first two years on mindset change so that communities link natural resources condition with their livelihoods, as a pre-condition for sustainability. Included exchange tours and training. CFW included to deliver immediate benefits as rehabilitation efforts take time. Will include a USD3.5 million ASAP grant and already signed a USD4 m GEF grant. Many SHs, including Ministries of Local Government, Gender, Agriculture.
- ICM and PES: Under Component 1 of ROLL, communities are organised into coalitions e.g. people interested in grasslands (livestock owners, handicrafts makers, traditional healers) that would manage a common landscape. A fund for landscape restoration is being established as part of exit strategy that will continue beyond project lifespan; currently

[183] https://wmo.int/activities/early-warnings-all
[184] E.g. from the UK: Nowcasting approaches are usually closely linked with those who are using them, be it in the energy sector, the general public or elsewhere. Summer 2024 sees the first trial of the Rapid Flood Guidance Service by the Flood Forecasting Centre which uses nowcasts to provide emergency responders with better information on flood risk out to 6 hours ahead, to help them in their planning and response to these events. With climate change leading to more frequent flash flooding driven by intense rainfall, improvements in nowcasting are more important than ever to provide early warning to those who will be affected. https://www.rmets.org/metmatters/nowcasting-what-happens-next
[185] See for example https://link.springer.com/chapter/10.1007/978-981-32-9783-8_23

exploring modalities for this to synergise with the Environment Fund, the Forest Fund, and international sources like the carbon market. Trying to align with payments for ecosystem services (PES) approach in which downstream users of resources invest upstream. Worked with Nature 4 Water, modelling sub-catchments that could attract financiers such as Coca Cola, Maluti Brewery, LHDA, as reduced rate of runoff would reduce siltation and thus reduce water treatment costs and extend life of dams.

- Good practices: ROLL will also conduct CBPP to develop investment plans for landscapes and has engaged a service provider. A graduation model is built in, with each level intended to unlock different incentives. Technology and innovation will be employed such as turning alien invasives into briquettes, medicines and cosmetics. Will develop a compendium of good practices under knowledge management activities.
- Governance: rate at which degradation is happening mostly has to do with governance. Where there are high levels of degradation, it is likely that area chiefs and local government are not well coordinated. Another challenge relates to councillors feeling entitled when there are valuable resources. ROLL will hold a National Dialogue on NRM from 7-9 August 2024 in Maseru, with the King, Prime Minister and Cabinet present, in order to determine the policy direction for enhancing governance of stakeholders on NRM. There are many laws that are not implemented. ROLL has already started with roadshows to get feedback from communities. Information will be compiled and discussed with Ministries to take decisions on way forward. Envisage that this process will be annual, also holding a Youth Dialogues, etc. Intend to build a process of volunteerism as well, and different incentives to accommodate the drastic reduction of fato fato budget. Working with Conservation International in South Africa and elsewhere to develop conservation agreements that extend beyond the project and promote ownership of communities.
- Challenges: Lack of policy harmonisation e.g. one of the Ramsar sites is governed by five ministries with their own goals. The Department of Conservation is the custodian of the UNCCD. The GoL needs a 30-year plan for SLM to increase productivity and livelihoods, including downstream of value chain – could IACoV assist in any way?
- Suggestions for way forward: IACoV should look critically into knowledge management and publicity for Phase II. ROLL had visited some of the good IACoV sites, these should be treated as Centres of Excellence. Very few people know about the good work done, even in the districts. Enhance peer-to-peer learning. Where projects are located under the Planning Units, the Ministries can link all departments. Having IACoV located under LMS does not promote coordination of departments. To prevent duplication, ROLL and IACoV should not work in the same sub-catchments but will of course use the same technical staff in the Ministry. Conduct planning at district level via the PIT – many of these became inactive after WAMP.

Sub-national government

Mohale's Hoek District Administration. Deputy District Administrator (DDA), Ministries of Environment & Forestry (Depts. of Range Management, Soil & Water Conservation, Forestry, Environment), Gender, Health, Meteorology, and District DMA, Ministry of Agriculture, Food Security and Nutrition, National Security Services, and Lesotho News Agency

- Climatic effects and socio-economic context: Participants noted that in addition to severe drought (2023 El Niño was unprecedented), climate related risks faced in Mohale's Hoek (MH) were erratic and heavier rainfall leading to floods, increasing fire outbreaks (especially in the past year), stronger winds that destroy houses, changes in hail and more lightning strikes, and heat waves. Environmental problems include severe land degradation and soil erosion, water scarcity, impacts on biodiversity linked to destruction of wetlands. The area is very dry and most of the fields are not ploughed, have hard capping. Linked to this, the socio-economic context is one of widespread food insecurity and hunger, higher unemployment, especially for the youth, than in other districts, early marriage and high sexual offences. Conflict in the form of rampant killings of able-bodied men, linked to the famo gangs who are vying for control of illegal mining shafts in South Africa and return home to settle scores in Lesotho, is a national crisis also felt the district.
- Reflections on IACoV: Participants expressed appreciation and enthusiasm for the IACoV project and noted many positive ways in which the project funds had enabled them to perform their core functions. Agriculture noted tanks, vegetable seeds, shade cloths, nutrition interventions. The Coordinator of M0E&F noted that the rangeland restoration was impressive, as well as provision of materials, and livelihood diversification activities (e.g. Lithakaling poultry, orchards, vegetables, pigs, water harvesting) which incorporated several ministries; diversification is seen as important adaptation strategy to prevent non-coping and migration. Ministries need a stronger say in the tools provided e.g. certain specs so that orchards are sustained. Will provide the relevant national technical standard. Range Resources noted development of Grazing Plans, conducting vegetation survey of grasses, demarcated areas, did livestock census, mapped land use patterns. This helped with rehabilitation of rangelands, through removal of invasive species (brush control) and re-seeding. Sensitised herders on climate change and grazing management. IACoV provided with transport to remote areas Dept. of Range Management can't reach. However, it was noted that Grazing Management Plans are yet to be presented to communities. During monitoring, in some places no improvement in resilience. In areas where this was good, people had adopted CSA approaches and bought food with the CBT.
- CBPP: Dept. of Environment noted how empowering being trained in and facilitating CBPP was in terms of the ministry's environmental education and outreach functions. "This tool has been very crucial to department. IACoV trained us and then we had to implement CBPP in communities and it has been successful. I had the opportunity to give environmental education and help communities with what they were not aware of before, how to use their natural resources to adapt." Transect walk highly useful, mentioned Pelargonium 'gwarra'? which companies were commercialising. Also involved in monitoring. "I still use the CBPP approach when I go to the communities." MoLG noted that the LoCAL project took on CBPP for their activities.
- AA: DMA very much appreciated the Anticipatory Action (AA) Plan, which identifies key functions including awareness raising and advising people accordingly, preparatory actions, and response once the forecast has been received but before the drought hits e.g. CBT to vulnerable households (on activities such as cleaning dams, building water reservoirs for livestock), provision of agricultural inputs. Challenges included late distribution of vegetable seeds to areas that were already water stressed (but did manage to supply some water tanks, JoJo tanks (5,000 litres) to 7 places in MH) and encouraged people to repair existing tanks and store water. The modality for CBT (Standard Bank Unayo mobile money app) did not work well as many people did not have cell phones or even identity documents so registered using other people's contacts which led to inconsistency of information and people needed to go to a bank, difficult in remote areas. In future it is better to opt for e.g. Mpesa as services are closer to communities. Many people in need could not be included because of the resource constraints. The AA started late – late October instead of September, related to late release of the seasonal forecast – needs to be released in July.
- Dept. of Soil and Water Conservation: water harvesting – project supplied tools for construction of tanks and pipelines to connect to water source. Ponds constructed under AA. A lot of stone line construction which reduces runoff, trench lines under brush control, gully rehabilitation. Training on soil health assessment, did some mapping of project sites. Gaps are that project should work in other areas, especially mountainous areas.
- Forestry noted provision of fruit tree seedlings to groups and individuals, nutrition benefits, significant contribution because of IACoV targeting. Lithakaling orchard example for the district (other orchards not as successful at targeting), shows the potential of a group-based orchard. "We were at a point where we were about to be discouraged. But we are really proud because IACoV provided the necessary resources so we could fulfil our functions." Lithakaling group still needs capacitation with proper tools on how to manage the orchard and to include other relevant activities e.g. beekeeping. LMS noted purchase and installation of AWS and training by IRI on how to clean the data and connect it with satellite. The weather forecast is still at national level, not district or localised.
- Gender: Dept. of Gender noted they had not been involved and volunteered to play an engaged role in gender mainstreaming in the project activities and design of Phase II. Asked whether vulnerable groups were being left behind e.g. elderly and people with disabilities; also re GBV and human trafficking. DMA noted that with AA, vulnerable groups and families who could not survive through the drought are being targeted, with the assistance of Social Development. However, the three-month CBT was not sufficient given the severity of the drought. Disabled and OVCs were reached. The project development team noted that Gender would be invited to play a lead role in the community consultation during July.
- Coordination: has improved due to project but more effort needed by the DA. Monthly coordination meetings of the Project Implementation Team (PIT) that had not been held for some time were due to resume the following week. IACoV, SADP and ICM projects participate in this.
- CIS and DRM: For Phase II, development of last mile climate services (LMCS) is needed and awareness raising of communities. Empowerment of communities re DRM. Develop risk maps. Roll out AA in other districts.

- SWC: More attention to groundwater recharge needed, must invest in protection and regeneration of wetlands and construction of drinking points to prevent livestock damage. While partners have started on this, it needs to be upscaled. Sand dams are good approach, more capacitation of extension officers is needed on construction of sand dams. Increase in rehabilitation of degraded areas to reduce runoff and flooding, construction of more dams; desilting and reconstruction of existing dams. More construction of tanks.
- Production and market access: More on pest management e.g. birds attacking fruit trees and wheat – birds trained to scare smaller birds off crops as in Botswana. People are experimenting with different kinds of fruit which can be harnessed and developed. Seen bananas, avocadoes, lychees – need to assess potential. More emphasis on forestry trees as DoF doing limited planting due to budget constraints. Suggestion re wool and mohair – however this has been supported through WAMP and IACoV cannot cover all needs. Continue nutrition interventions which have been very successful. Strong collaboration on market access is needed. Could consider containers in towns so people from remote rural areas could sell their fruits and honey, etc.
- Rangelands: Expand reclamation work. Training and equipment for collection and storage of native grass seeds for rangeland rehabilitation. Resources are spent on seeds from SA that are not locally suitable. Intensify drought resilient fodder production, especially permanent cover.
- Herders: Capacitation of herders on fires, equipment used to put out fires, first aid training and construction of fire breaks. In mountainous areas, climate-resilient shelters where fodder can be positioned to cope with heavy snowfalls would help. Mapping of cattle posts and sensitising herders, DMA not able to reach them.
- More programmatic and systematic training is needed for extension staff across the board to promote sustainability. Annual refresher courses. Iterative training for district staff should be linked to action plans for post-training work with concrete outputs and supported by follow-ups for accountability. Capacity development for HoDs would enable better complementarity across departments. Specific areas for environmental officers (and others) include wetlands protection and rehabilitation, biodiversity management (like RVCC training in 2018). Consider 1-2 week courses and study tours to specific platforms e.g. the annual South Africa National Wetlands Indaba. Community exchanges for mutual learning e.g. with progressive farmers – who use better technologies and know better varieties than the extension staff.
- There is great potential to harness local and cultural traditions for operationalisation of the NCCS - awareness raising and do deliver CC messages, e.g. inclusion of artists, local Basotho songs, school choirs could compose songs and choir competitions on climate change. Reporters at the district level have not received the media training for better reporting on CC. Local radio station is being established in the district which could assist with AR. When asked about the potential for increased youth involvement and benefit, participants noted the need to motivate youth involvement in agriculture in Phase II. While participants agreed that not all needs could be budgeted under IACoV, it was requested that consideration be given to how to play a small role in the national conflict crisis. E.g. hold roadshows in villages, football matches, plant trees, 'small therapy'. The project team will look for multiple benefit activities. It important not to duplicate – ROLL project will be in area in July with a roadshow.

Thaba Tseka District Administration. District Administrator (DA), Office of TT District Council, Ministries of Environment & Forestry (Depts. of Range Management, Soil & Water Conservation, Forestry, Environment, Meteorology), Gender, Health, and District DMA, Ministry of Agriculture, Food Security and Nutrition, District Food and Nutrition Coordinating Office (FNCO); Lesotho Red Cross; World Vision; WFP District Field Office

- Participants were welcomed by the DA (11 months in the position) who emphasised the project was necessary to help do away with the situation in which people go to bed hungry.
- Climatic changes mentioned included strong winds and high rates of evaporation which affect soil moisture; long dry spells in January – March; changes in the timing of snowfalls, which used to occur in June-July-August but in recent years snow fell in November when the plants in the field had not yet reached maturity and were damaged by frost. In some cases, changes could be positive as with late frosts, plants are able to grow to maturity. However, climatic changes on top of the business-as-usual farming system are now resulting in extremely low crop yields. Livestock also suffer – for example, mohair goat production is affected by many baby goats dying from diarrhoea – this apparently is related to dry spells during which they become highly vulnerable – this is exacerbated by overcrowding on the rangelands. District staff said that poor land and livestock management probably had more of an effect than climate change itself, at present.
- Environmental challenges included high levels of rangeland degradation, increased invasive plants (Sehalahala in Sesotho; bitter bush – Chrysocoma ciliata), and wetlands degradation. The latter is linked to the lack of coherence across the district on rangeland management governance, linked to 11 Principal Chiefs being present – most districts, for example Mokhotlong, only have one. In some places there is no longer rotation, and no converging grazing plans or adherence to these. The District Administration is attempting to create a platform to remedy this situation, which is a sensitive issue, working with the Lesotho Highlands Development Authority (LHDA) within the relevant catchments and the RENOKA project. However, only 6 of the 11 chiefs attended the first meeting. A large high altitude wetland was mentioned which is always grazed and is overloaded with goats, sheep, donkeys, and horses. Informal and/or irregular arrangements are reportedly made with owners of herds to circumvent grazing plans. Enforcement of existing policies is problematic.
- Livelihoods: The basis for livelihoods in the rural areas of the district is crops – maize and wheat, also beans and peas (dried and fresh) – and livestock – cattle, sheep, goats, while people use horses and donkeys for transport. The poor and ultra-poor groups can gain a reasonable to good income from rosehip harvesting. The rosehips are not processed in the district but sold to traders and used for rosehip tea, petroleum jelly, etc. In some cases, a HH could harvest 480 kg. Students rely on this to save before going back to school, as sale of rosehip has helped children to bring some food to school. Women and children have been observed harvesting rosehip; however, it is not clear if there is a strict gender distinction. However, rosehip is an invader in the rangelands, with one place in the Katse area where it has taken over the rangeland, generating significant conflict. There are trade-offs with the wool and mohair industry which generates a significant part of Lesotho's agricultural economy[186]; an option could be to do clearing of rosehip in areas where this is not wanted in ecological terms, and substitute this with planting in controlled areas to maintain this livelihood option for the poor HHs. Rosehip oil – especially organic – could fetch a high price locally and in the export market. Many people rely on brewing but there has been a decline in this because of climatic changes – decrease in production of maize and sorghum, as well as increased prices since the Covid pandemic (1 litre of beer now costs Maloti (M) 15-30, previously M5), related as well to declining access to firewood which increases the price for brewing. Illegal mining constitutes a hard-to-categorise livelihood group that is prevalent and growing in TT, as many of these people came from very poor families but have now become very wealthy and have expensive vehicles.[187] However, women and children left behind in big houses may not have money for food. For example, neighbours indicated a house with two minibuses and a van which cannot be used until the husband comes home, and said that the family is starving. The wealth may disappear very fast, even where the husband is in Lesotho. Illegal miners may offer bribes to the traditional authorities for grazing permits for their livestock, leading to wetland degradation and overstocking of the rangelands, while others are unable to get grazing permits. Migration for work included to KwaZulu-Natal to work on sugar cane farms or to Ceres for seasonal fruit picking.
- Other projects and supporting organisations: ROLL, Red Cross, World Vision's Strengthening Community Resilience project – working in two areas, has provided vegetable seeds, JoJo tanks, provided extension support for keyhole gardens, trench beds, shade nets. The SADP project is active in all community councils in TT, helping farmers with crops and livestock production towards the market. The Red Cross said they had no project to help vulnerable people. WFP is supporting nutrition through Agriculture and Education departments via ECD schools on vegetable production. Catholic Relief Services (CRS) has three projects in the district, including school feeding at 91 out of the 145 primary schools (and 10 in Mokhotlong). The IFAD-supported Regenerating Landscapes and Livelihoods (ROLL) project will be working in three sub-catchment areas covered by four community councils. The Forestry and Agriculture extension services in the district have tended to be technically-based but realise the importance of social elements, particularly changing the mindsets of people for sustainability. They have recently procured the NGO Sentebale to provide these services.
- Financial inclusion: SADP and KB – Karabo ea Bophelo, funded by USAID and PEPFAR and implemented by Women and Law in Southern Africa Research and Education Trust –Lesotho (WLSA) – this is a 5-year project operating in all 10 districts[188]; vocational school in TT town which is not yet open.

[186] Wool and mohair account for 60 per cent of Lesotho's agricultural exports and support 45,000 rural Basotho families, concentrated in districts recording high levels of poverty. https://www.ifad.org/en/web/operations/-/project/2000003942

[187] Most of the *zama-zamas* are illiterate and were herders and may have been involved in the destruction of the wetlands / rangelands; they go to initiation school, then to South Africa to the mines.

[188] Karabo ea Bophelo (KB) is a five (5) year program with a strategic objective of supporting the government of Lesotho's (GOL) multi-sector strategies and priorities for HIV mitigation and prevention, with an emphasis on minimizing negative impacts of HIV on OVC and AGYW; addressing social, behavioural and structural drivers of HIV, and improving access to comprehensive SRH services to prevent new infections.

- Private sector: The DA met with local private sector the week before. Private sector morale has been "disturbed and destroyed for some reason" – they also need to be approached in a different way. Noted the 2023 Katse Tourism Festival supported by LHDA, which was a world class event. The business community built a house for a family of which the two adults are disabled, with children. The situation is not the same in TT as in Katse area. Main local private sector organisations: brickmaking industry, poultry, supermarkets – but dominated by Chinese-owned sector which is not willing to engage; commercial banks who do provide some support on their own terms. Push underway to increase Standard Commercial Bank's support for annual horse racing event.
- Key ways forward; Use the powers of the District Administration to stabilise the situation as relying on central government could be time consuming. Sensitisation of Principal Chiefs and other leaders on the need to protect the wetlands in order to safeguard their land in the future – this could involve development also of a district strategy that could be agreed to and enforced at the sub-national level by the legal authorities (urban councils, district council, HoDs). Potential for Sehalahala to be harnessed to benefit local people.
- Behavioural change: DMA emphasised that behavioural change programmes were sorely needed, so that communities can understand trends and be supported to stabilise the food situation. Farmers currently plant where they always have, using traditional methods and are reluctant to adapt to drought-tolerant seeds and varieties. More capacity development programmes are needed to stabilise the nutrition situation as currently responses only bring short-term effects. In general, a change is needed in the way sensitisation programmes are carried out, as the DA staff said that "people were getting used to it and it doesn't change anything, they don't care anymore". A new approach is particularly needed for herders and zama-zamas, 95% of whom are illiterate and who are now wealthy and own large livestock herds. CBT approaches are considered still necessary given the high levels of vulnerability and poverty. However, approaches to avoid dependency should be integrated into CBT delivery for sustainability. Currently, people expect that the government will bail them out.
- Processing and related opportunities: Processing of high-quality products such as mohair wool in the district – at the moment this is only sold in bulk. TT good for apples, not peaches – although there is good example at Liliswete (?) pf peach processing, but people were not interesting in duplicating this. Visitors from Mozambique who were very interested in Chrysocoma – to harvest for charcoal making.
- District staff numbers: Min of Environment and Forestry: 32 staff in total in TT, I forestry extension officer per area, only 1 or 2 SWC staff in district, 1 Environment officer for district, Grazing Control officer. 7 Agricultural Resource Centres (ARCs), staff hardly there, reportedly due to conditions and mountain allowance being discontinued. Environment is being encouraged to reinforce their district structures.

Mafeteng District Administration. District Administrator(DA), DMA, Office of Ministries of Environment & Forestry (Depts. of Range Management, Soil & Water Conservation, Forestry, Environment), local Government, SADP PM, MAFSN (Dept. Crops, Planning, Extension)

District livelihoods basis and challenges:

- Mafeteng has experienced crop failure for over two decades now and agriculture is no longer one of the main livelihoods in the district due the extent of land degradation and desertification that has engulfed arable land. According to DMA, even the latest LVAC results do not correlate crop failure to food insecurity in the district and cite remittances and casual labour (most done in the adjacent South African towns) as the main livelihoods employed by majority of the population. Agriculture is still practiced in the district's foothills, but challenges affecting yields include soil type which performs poorly for crop production and water shortages.
- These main livelihoods are affected by factors that include massive retrenchments, deportation, and sharp hikes in the prices of basic commodities which have an adverse impact on households' purchasing power. GoL interventions have been pivotal in filling gaps brought about by decline in remittances; IACOV has been able to close the food gap in 7 Electoral Divisions for over 3 years. There are 6 Principal Chiefs in this small district, making governance of natural resources a challenge.
- LVAC beneficiary respondents attested to having been able to meet their basic food needs for the duration of CBT and wished to see this continue as they now regard it as a form of 'employment'. The GoL through DMA and MoEF has been providing Cash for Work and Social Development issuance of quarterly and monthly social grants.
- Women have been the main participants and recipients of CBT/ CFW as they form the largest segment of the workforce. The interventions cover the whole district although for development Projects there are geographic demarcations set to avoid duplication.

Other projects and supporting organisations: Other projects and organisations operational in the district are ICM/ RENOKA, SADP II, World Vision, IOM, and Lesotho Red Cross Society. They all contribute towards creation of livelihoods and food security through provision of agricultural inputs and other cottage-based inputs for income-generating activities within communities they operate in.

Environmental challenges: Water availability is a great challenge and communities mostly rely on boreholes as the water sources are very few. Mafeteng is mostly lowlands and the fields are characterized by very deep gullies. The soils here are not productive especially the central and southern parts of the district. The northern part is better as the soils are still productive, but the rangelands are bare, indigenous forests are overharvested, due to massive erosion, the rivers are filled with sand.

Quthing District Administration. Deputy District Administrator, DMA, Local Government, Rural Water Supply, MAFSN (Dept. Crops, Extensions), MEF (District Coordinator, Dept. Range management, Soil and Water Conservation

Climatic changes: The participants mentioned strong winds that leave many households homeless. Early and late frost result in the decline of food production, especially cereals, and contribute to mortality in small stock, especially sheep and goats, as sometimes this occurs during the shearing season. Changing rainfall patterns tamper with the growing season such that the summer cropping season has shifted by about 2 months because the first rains were normally received around August, but, currently the first rains are received around October.

Environmental challenges: for this district the challenge is mainly degrading land due to drought and other factors which have impacted the cropland extensively. The district lies around the Senqu River Valley, foothills and mountains. The soils are deep, while they constitute the duplex type, which when it rains, the water easily gets absorbed by the top layer, but later forms a lateral movement as the second layer is clay and percolation becomes slow. The soils are piping, forming very deep gullies seen by the road as one travels, and in the crop and rangelands. Like most of the country, the rangelands are attacked by invasive species, which are not palatable for livestock production.

Livelihoods: For Quthing, as in many districts in the country, the main livelihood is crop and animal production. Maize being the staple food is planted together with sorghum, beans, peas and wheat. Vegetables also form part of the livelihood. The district borders with Eastern Cape province of South Africa; many people cross the border legally and illegally to work in the farms. The Ceres fruit farm is the most popular for able-bodied men and women, young and old. The sale of wool and mohair and harvest and sell rosehip in winter, although the prices are not regulated for this industry.

Other projects and supporting organisations: the IFAD ROLL project is present is restoring the Letsa-La-Letsie wetland from degrading. The GEF-funded and UNDP Sebapala project is also here restoring the major rangelands around the Sebapala area to support livestock production through the improvement of rangelands. CRS promotes financial inclusion and livelihoods. World vison operates in Mphaki area on livelihood interventions.

UN agencies / Development partners

World Food Programme Lesotho Country Office [Country Director, Deputy Country Director, Programme Policy Officer for Resilience, School Feeding and Social Protection; Programme Policy Officer for Nutrition and Gender;]

- The IACoV project is extremely important given the climate risks and their linkages with vulnerability and food insecurity; it is highly positive that the GoL wishes WFP to continue to provide support through a Phase II.
- Scale is important for Phase II, as well as tangible, concrete, sustainable results. Important to measure results of capacity strengthening and show impact – could also track cost avoided. Also focus on vulnerable groups such as herders, including training to break the cycle of bad nutrition, and provide them with tangible benefits. The MTR found that there was internal incoherence so the synergies between the humanitarian and development sides need to be harnessed better. In the three southern districts, ownership and sustainability and scale is needed, connected to the private sector. Thaba Tseka is also highly vulnerable – 10-year trends show this, and the ICA (up to 2021), and the NAPA. World Vision has large presence yet very high levels of malnutrition – need to dig deeper to see what is wrong in Thaba Tseka.

- Vulnerability: The recent LVAC findings provide important motivation for the proposal, in terms of root causes. Almost 700,000 people in Lesotho will require assistance. Crop yields extremely low in Lesotho – below 2 MT per hectare – how can intensification narrative be brought in? Is the three-month CBT support sufficient? Even outside of the lean season, there are many people who lack access to food.
- Field-level implementation: Need to strengthen field-level implementation for resilience building activities – on behalf of the WFP CO, which needs to do more in terms of oversight and quality assurance, as well as the PMU, and the GoL. Field offices need programming expertise, not only monitors, so that they can coordinate better with partners, etc. WFP branding on changing lives is as important as on saving lives, to enhance understanding of WFP's roles.
- Sustainability and ownership: There has been progress on this, needs continued effort. LMS has benefited and built systems through IACoV. More emphasis needed on building stronger systems for Ministry of Environment and Forestry. Coordination and leadership are key factors, developing the right organisational culture. The PITs have ToRs and are chaired by the DA, this si a good model to be further supported. CBPP is being inculcated, GoL is now embracing and scaling up – e.g. required LoCAL to use this approach. CBPP as a tool embraced in the public works guidelines. IACoV Phase I included in the FP an activity to develop an M&E system for the Ministry of Forestry. Ministry of Environment and Forestry needs a dashboard – RVCC developed good GIS, experts helped them develop story maps. MoEF has very outdated policy and strategy framework. Land Atlas updating – has some other project undertaken this?
- Challenges: Politics between different ministries has an effect on implementation – this has not been significant but should still be overcome. Need better coordination between production and marketing. Procurement delays are a reputational risk as well as risk to project implementation, this must be resolved in Phase II, by inter alia improving planning, providing specifications early,
- Possible ways forward: For herders, could consider the 'pass on the gift' approach – e.g. in which first cow offspring is given to the next family. Also making briquettes from cow manure. Cash for school – to break the generational cycle of violence and get them back to school. A recent study showed that the culture in initiation schools may be perpetuating the cycle of violence against women. How influence this curriculum? Need strong coordination between the IE and the EE; IE needs to also understand that PMU staff need to be 100% focused on project execution, and what this means in practice for IE procedures. Enhanced collaboration between departments / ministries – for example on tree planting. Keep enhancing district-level technical coordination. Procurement – need much earlier, proactive planning to ensure timely arrival of goods. Show synergies with National Strategic Resilience Framework. Ensure course correction through learning as we go. Evidence generation linked with M&E and communications. Pursue greater integration and synergies between IACoV implementation and other CO activities. Ways to assist GoL to increase their field presence – including possibility of using old WFP vehicles.

United Nations Development Programme (UNDP) Lesotho Country Office [Energy & Environment Programme; Small Grants Facility]

- Current UNDP project: Water management in Quthing upper catchment, ICM approach, building capacity of local communities and local government on ICM structures. Established Integrated Watershed Committees and started working on ICM plans, as well as some ground work on rehabilitation – 2,000 hectares and ongoing.
- Pipeline projects: GEF-funded Medicinal Plants Project, 4 years, 2024 – 2028, targeting protected areas, especially hotspots where there is serious harvesting, will work with research institutes. Quting included. Focus on research and development, may not work on value chains. Component 1 involves establishing regulatory frameworks, Component 2 is on capacitating communities to negotiate and on protection. There is no standalone component on conservation as the project is funded under the Nagoya Protocol which aims for the fair and equitable sharing of benefits arising out of the utilization of genetic resources.[189] A second proposal is being developed, to be submitted to GEF, to work especially with communities.
- Small Grants Facility: Funds environment/conservation CBOs. Past 5 – 6 years, focus has been in Senqu River catchment – Mokhotlong, Quacha and part of TT. Now currently elaborating this for GEF-8. SGP will continue to work in Senqu River basin and foresee that Quting will continue to be targeted – lands with biodiversity hotspots. SGP can use 30% of resources outside of the agreed priority landscapes. RSDA grant mostly working with grazing associations and farmers' groups. Also womens' burial / savings groups. Some ecotourism – focus on preserving natural and cultural heritage around Sehlabathebe National Park – lot of poaching in the buffer zone. Mainstay in area is wool and mohair livelihoods, so there has been a focus on increasing the quality and quantity of wool and mohair production. Sehlabathebe also identified as one of most suitable areas for potato production (seed and table). Ecotourism activities supported include vulture restaurant. Support is provided by the Department of Tourism and the Lesotho Tourism Development Corporation. Training provided to small groups for homestays. Tourism establishments work with local community groups who have horses and can act as tour guides. There is an association in Malealea, Quting, and Sehthlabathebe (pony trekking – work with operator in Underberg, SA, but need to quality enhancement) – IACoV could talk to technical teams on ground for more details.
- Sustainable Energy For All: SE4All has installed 10 minigrids in Quacha, TT, MH and Mokhotlong.[190] IACoV could look at what activities can be supported now that there is electricity. UNDP is now working on a follow-up project with the EU, to start this year.
- UNDP Governance Unit: Do have forums where discussions are held so might be able to assist in TT regarding the rangeland governance issues. Also did some work on zama zama issues in Mafeteng.
- Reports and processes: The last National State of Environment Report (NSoER) was produced some time ago, supported by UNDP. Supposed to be updated every 5 years, however leadership in this regard is lacking. UNDP is supporting the new, second generation NDC – this has been 2 years in the development and not yet finalised. A meeting was held regarding the 4th National Communication to the UNFCCC a few months ago.
- Key success factors: In terms of governance, chiefs who understand and who work well with councillors – e.g. Madubadube in Mokhotlong, chief is now running with rangeland rehabilitation after conclusion of SGP project support. Due to success, managed to leverage in LHDA to provide cash for work (CFW) to cover larger area; return of wildlife, etc. Every September, the area is opened up for grazing and people are invited to an open day . Good enforcement on part of Principal Chief – required herders / livestock owners to either pay M500 or stay out of the area. Also important to emphasis livelihoods / IGA component and build good rapport with district government. High turnover at district level so need refresher days. Extension officers do not always do the required training of trainers (ToTTs) in the districts.
- Coordination: In Phase II, must see how can improve collaboration – particularly in harmonising incentives – as people opted for IACoV which provided incentives, rather than the UNDP project. The UNDP project will not promote CBT, but incentives to continue to produce. Helpful discussions had been held with the technical team on the ground and the PITs at district level should promote harmonisation. Potential to include other UN agencies on the PSC? WFP explained that the PSC has been de-politicised, only the Directors and the NUL sit on it, plus the MIE. The PSC visits the ground level on a quarterly basis. IACoV has advocated for the district-level PITs, chaired by the DA (introduced by the RENOKA project), which are held on a monthly basis to plan and avoid duplication) to go beyond the project. The MH PIT is working well. Ultimately, the PSC reports to the NCCC, which UNDP does attend.
- Perception of WFP: UNDP mentioned WFP is / may be perceived as having a comparative advantage in humanitarian assistance and not resilience / climate change.

Food and Agriculture Organisation (FAO)

- FAO has a number of synergistic projects in pipeline, the synergistic projects on Water for Agriculture; and ICT, digital communities and farming to improve extension services and market access.
- FAO recommended a UN to UN partnership to provide technical support on Agriculture related livelihoods for a meaningful collaboration. They would therefore charge staff costs because they do not have good funding prospects.

[189] https://www.cbd.int/abs/about
[190] The 10 villages are: Ketane (Ha Nohana) and Ribaneng in Mohale's Hoek; Matsoaing and Tlhanyaku in Mokhotlong; Sehlabathebe (Mpharane) and Lebakeng in Qacha's Nek; Tosing (Dalewe) and Sebapala (Ha Sempe/Lefikeng) in Quthing, Sehonghong and Mashai (Moreneng, St. Theresa) in Thaba-Tseka.

NGOs and CBOs

World Vision Lesotho

- World Vision is a child-focused and community-based organisation that has Area Programmes in Quting, Mohale's Hoek and Mafeteng. Aps do not cover whole community council, only specific villages. Also some activities in Thaba-Tseka. Has technical programmes in Livelihoods and Resilience; Health, HIV and AIDS, and Nutrition; Water, Sanitation and Hygiene; and Child Sponsorship programme. There are two main programming approaches: long-term i.e. up to 15 years, and grant-funded projects. Child Sponsorship programme sponsors children over the long-term, targeting children as individuals, their HHs, and their communities. Targeting is done through the ministry of Social Development. Interventions in ecosystems of children include advocacy for child development and protection, partnerships with other organisations at different levels. WASH programme includes roof water harvesting at schools. 80% of the health programmes are on nutrition, all LHs outcomes are linked to nutrition indicators, especially for children. Target under-5s and mothers for HIV etc through Village Health Workers. Raise awareness on services available. Collaboration with IACoV Phase I: Ad hoc collaboration – for example, in Phamong area, where WFP has community gardens, WV been instructing on shade nets. In Mafeteng, collaborated well by alternating funding for the PIT meetings.
- Faith-based approach: Through WV's Faith and Development department, there are different project models. At the national level, work with the Christian Council of Lesotho, and faith networks and leaders at district and local levels. Equip them to carry out AR for their congregations. Formal and informal faith-based organisations, can include traditional faith, Muslim faith, etc., do not impose their faith. The model is not meant to change people's belief but to promote stewardship.
- Disaster preparedness and emergency are mainstreamed, became very important in terms of Covid pandemic. Strong relationship with DMA and on 4th phase of ECHO project, so much experience in this area. Build capacity of Disaster Management Clubs in schools, regarding vulnerabilities and anticipatory actions. Work with DMA at community level to establish VDMTs and build their capacity. In TT, had a DRR project funded by ECHO, which included AR and empowerment of VDMTs, across a few community councils, including the DA. Collaborated with partners, including WFP in Mokhotlong in 2023, and participated in LVAM and will respond based on findings. Recently there have been many fires at the HH-level and was able to respond. One incident in Mohale's Hoek in 2023, rangeland fire and many livestock of one farmer were caught in fire. Have built capacity of shepherds and livestock owners for rangeland management with ministry of Environment and Forestry. Gender and disability inclusion are also mainstreamed.
- Livelihoods and resilience: The model is founded on mindset change for sustainability. Empowered world view model is based on faith perspective. Assists beneficiaries to understand it is their responsibility to participate in their own development. Partner closely with different government ministries – training MoA extension workers at different levels for sustainability. Holistic approach embracing agriculture and food security, CC and environment, stewardship, DRR, livelihoods – to minimise risk of projects being eroded. Also integrate WASH and water access. Several areas included: Financial inclusion: savings groups – 'Savings for Transformation' – social fund embedded for own responsibility. Meet monthly, contribute, share. Want to have community banks to access finance and learn from groups, as commercial banks require collateral. Link savings groups members to mobile finance providers like Mpesa and banks. Promote production: crops and livestock, for HH level food security and nutrition. Promote climate smart approaches like keyhole and trench gardens, shade net structures. Promote indigenous small stock, especially chickens. Eco-friendly projects e.g. beekeeping. Previously, used to invest a lot of resources at community level in assets, now focus on HH level, push for aggregation for market access, now can measure results. WV has experience with good engagement with chiefs and good learnings where bylaws have been activated. Environmental sustainability and climate – there are two areas of focus: mitigation and adaptation.
- Ideas for ways forward: Strengthen partnerships with District DMA – support in terms of coordination of preparatory actions and response. Useful to have NFIs in stores. World vision and IACoV could work more closely together, planned rather than reactive collaboration. World Vision expressed their interest in a closer relationship with Phase II; the organisation has worked in different partnership modalities – for example, with SADP, were engaged to implement a component on Gender over a two-year period. SADP will work across all 10 districts.

Paray Mission Hospital

Paray Mission Hospital in Thaba Tseka, Lesotho, is a Roman Catholic Church Health Facility situated at the administration centre of Thaba Tseka District and is under the leadership of the Archbishop of Maseru. It implements various public health programs aimed at addressing community health needs and improving healthcare outcomes.

- Maternal and Child Health: Programs focusing on maternal health, prenatal care, safe delivery practices, and neonatal care to reduce maternal and infant mortality rates.
- Immunization Campaigns: Initiatives to ensure widespread immunization coverage among children and adults, protecting the community against preventable diseases.
- HIV/AIDS Prevention and Treatment: Programs promoting HIV/AIDS awareness, prevention strategies (such as condom distribution and education), and providing antiretroviral therapy (ART) for HIV-positive individuals.
- Nutrition and Food Security: Programs addressing malnutrition, promoting breastfeeding, providing nutritional supplements, and supporting agricultural initiatives for food security.
- Water, Sanitation, and Hygiene (WASH): Initiatives to improve access to clean water sources, promote hygiene practices (like handwashing), and sanitation facilities to prevent waterborne diseases.
- Health Education and Awareness: Outreach activities and community health education sessions on topics such as family planning, reproductive health, hygiene, and disease prevention.
- Chronic Disease Management: Programs supporting the management of chronic diseases such as diabetes, hypertension, and asthma through regular monitoring, education, and access to medication.
- Community Outreach and Mobile Clinics: Conducting health screenings, and vaccinations, and providing basic healthcare services through mobile clinics to reach remote and underserved populations.

These programs at Paray Hospital are likely coordinated with local health authorities, non-governmental organizations (NGOs), and international health agencies to maximize impact and address the specific health needs of the population in the Thaba Tseka district and surrounding communities. Areas like Majara fall within the service area of Paray Hospital while Setoetoe village is not serviced by Paray.

Climate change impacts: **Extreme Weather Events**: Thaba Tseka, like many parts of Lesotho, may experience more frequent and intense extreme weather events such as floods, droughts, and heatwaves due to climate change. These events disrupt healthcare services, damage hospital infrastructure, and lead to an influx of patients requiring emergency medical care. **Health Impacts on Vulnerable Populations**: Climate change disproportionately affects vulnerable populations, including the elderly, children, and individuals with pre-existing health conditions. Paray Hospital experiences an increase in patients seeking treatment for respiratory illnesses, waterborne diseases, hunger, and Goiter. Some of the patients do not adhere to their treatment. Water **and Food Security Challenges**: Changes in precipitation patterns and increased temperatures affect water availability and agricultural productivity, leading to food and water shortages in the communities and in the hospital. Paray Hospital often needs to address malnutrition cases and other health consequences resulting from food insecurity. The increasing rate of early marriage is the result of food insecurity challenges.

Private sector and financial institutions

Standard Lesotho Bank (Thaba Tseka)

The services offered by Standard Lesotho Bank aim to cater to diverse customer needs, promote financial inclusion, and encourage a culture of saving among individuals and businesses in Lesotho.

- Promotion of Sustainable Practices: Standard Lesotho Bank promotes sustainable business practices among its clients and partners. This includes providing advisory services, workshops, and resources to help businesses adopt sustainable strategies.
- Group Savings Accounts: Group savings accounts cater to informal savings groups, associations, or clubs looking to pool funds together for common purposes. These accounts may offer benefits such as joint access to funds, interest earnings, and transparent record-keeping.
- Online and Mobile Banking: Standard Lesotho Bank provides digital banking services that allow customers to manage their savings accounts conveniently through online banking platforms or mobile banking apps. This includes checking account balances, transferring funds, setting up savings goals, and receiving alerts.

- Financial Planning and Advisory Services: The bank may offer financial planning services to help customers assess their savings needs, develop savings strategies, and make informed decisions about choosing the right savings products based on their financial goals and risk tolerance.

Unique experiences/opportunities in Thaba Tseka: Men have a habit of saving their earnings from their agricultural activities including the sale of livestock as well as wool and mohair. They include their wives who have access to such savings. In town women have better savings than men. Most people are trustworthy and willing to get guidance from the bank. The rate of youth savings is also steadily increasing for earnings from livestock sales and off-farm-related activities.

Lesotho Highlands Water Development Company (LHDC)

The Lesotho Highlands Development Company (LHDC) has recently launched its 10-year strategy with a focus on livelihood restoration, and integrated catchment management among key components. LHDC is involved in various range management activities as part of its operations related to water resource development and environmental conservation in Lesotho. Key range management activities undertaken by LHDC include:

- Grazing Management: LHDC implements grazing management practices to ensure sustainable use of rangelands. This includes rotational grazing systems, where livestock are moved between different grazing areas to prevent overgrazing and allow vegetation recovery. The principal and area chiefs play a pivotal role in the establishment and enforcement of the by-laws/regulations to protect the range of land. There are regular meetings (quarterly and as needs arise) and trainings offered by LHDC for the chiefs and community councillors.
- Fencing and Enclosures: LHDC constructs and maintains fences and enclosures to manage grazing areas effectively. Fencing helps control livestock movement, protects sensitive vegetation, and prevents the degradation of critical habitats.
- Water Infrastructure Development: The company develops water infrastructure such as boreholes, dams, and water points strategically placed across grazing areas. These infrastructure developments ensure that livestock have access to water throughout the year, reducing pressure on natural water sources.
- Vegetation Monitoring and Rehabilitation: LHDC conducts regular monitoring of vegetation cover and health to assess the impact of grazing and other activities on rangelands. Where necessary, the company implements rehabilitation measures such as reseeding, erosion control, and planting of indigenous species to restore degraded areas.
- Community Engagement and Training: LHDC engages with local communities to promote sustainable range management practices. This includes training sessions on grazing management, soil conservation, and the importance of biodiversity conservation. Community participation in decision-making processes regarding range management is also encouraged.
- Wildlife Conservation: In addition to managing livestock grazing, LHDC supports wildlife conservation efforts in the region. This may involve habitat restoration, anti-poaching initiatives, and biodiversity surveys to monitor the health of ecosystems and protect endangered species.
- Research and Data Collection: The company conducts research and collects data on rangeland ecology, soil health, water quality, and biodiversity to inform its range management strategies. This scientific approach helps LHDC make informed decisions and adapt management practices based on empirical evidence.
- Compliance with Environmental Standards: LHDC adheres to environmental regulations and standards set by local authorities and international bodies. This ensures that range management activities are conducted in an environmentally responsible manner, minimizing negative impacts on ecosystems and biodiversity.

Overall, range management activities by the LHDC are integral to sustainable land use practices in Lesotho, aiming to balance the needs of water resource development with environmental conservation and community livelihoods. These efforts contribute to the long-term ecological health and socio-economic well-being of the region. In the Thaba Tseka district, LHDC environmental and ecosystem regeneration interventions are only implemented in the Katse catchment.

Annex 5: Lesotho IACoV Phase II Local and Community Consultations Report

1. Background

The Designated Authority (DA) to the Adaptation Fund (AF) of the Government of Lesotho (GoL) wishes to develop phase II of the 'Improving Adaptive Capacity of Vulnerable and Food Insecure Populations in Lesotho' (IACoV) project that started in October 2020 and will end in April 2025. WFP serves as Multilateral Implementing Entity for this project, providing technical backstopping and key reporting, monitoring, evaluation, and financial management and oversight processes. The GoL wishes to scale up the successful adaptation and resilience activities in the three southern lowland districts of Mafeteng, Mohale's Hoek and Quthing, and to scale out into Thaba Tseka district, in the mountainous region currently not covered by the project. In addition to stakeholder (SH) consultations carried out at national level, district and local community consultations have been conducted during the project formulation phase, in order to ensure project activities meet localized adaptation needs and to enhance local and community ownership over the project activities. The local consultations are essential to identify and/or validate additional interventions and innovations that can support vulnerable communities and individuals to enhance their adaptive capacity and implement adaptation approaches. The disaggregated findings provided primary data for the project's Gender Assessment (GA) and Gender Action Plan (GAP). Once the GA and GAP were completed, the final activities were developed and agreed with the GoL and other key SHs.

2. Approach and methodology

2.1 District-level stakeholder consultations

In order to meet AF, GoL, and WFP requirements for participatory development, a district and local community consultations process was planned from the outset of project formulation for the proposed phase II of IACoV and implemented in the four project districts over a three-week period from 17 July to 5 August 2024. At the district level, the entry point was the District Administration, consisting of the District Administrator (DA) and key GoL ministries and departments present. The DA leads and coordinates the implementation of all activities executed by all government ministries, NGOs, and development partners. Detailed meetings were held with these local government staff and extensionists, which were also attended by key NGOs and delivery partners present at the district level, after which the project development team, district staff and WFP Field Monitors conducted community consultations in several localities within each district.

A total number of 42 district-level SHs were consulted, of whom 21 were female and 18 male, and 3 youth (under 35) primarily from the DA and various government ministries and departments, including Gender; private sector and NGO representatives also participated. Please see **Annex 3** of the proposal for a list of district-level SHs consulted. **Annex 4** of the proposal contains a list of key points raised by district SHs from the different sectors – these have been integrated into the analysis set out in this report where applicable, and into the full proposal.

2.2 Community-level consultations

A total of 11 villages or localities across the four districts were included in the community consultations, as follows: Mafeteng – two; Mohale's Hoek – three; Quthing – two; and Thaba Tseka – four. Extra emphasis was placed on Thaba Tseka as this will be a new district for IACoV.

In each village, between three to five focus group discussions were held separately with women, men, and female and male youth, to facilitate open discussions and inclusiveness. Disaggregating the groups by gender and age allowed participants to freely express their opinions and perspectives, including the freedom to discuss

sensitive issues such as gender-based violence (GBV), and facilitated disaggregated data collection. Participants were drawn from key committees and groups including village disaster management committees (VDMTs), village burial societies, village policing forums, electricity committees, initiation school committees, grazing associations, clinic committees, village development committees, and other ordinary members of the villages, including the chiefs. A small number of people living with disabilities (PwDs) also participated. The FGDs were conducted in collaboration with stakeholders from the DA's Office, Disaster Management Authority (DMA), the Ministry of Gender, Youth and Social Development (MGYSD), the Ministry of Environment and Forestry (MoEF), the Ministry of Agriculture, Food Security and Nutrition (MAFSN), amongst others, as well as NGOs such as Lesotho Red Cross and World Vision.

Table A5.1 provides a summary of the total number of community members, which was **704 people**, included in the community consultations, disaggregated according to age and sex, with further tables below providing the detailed information per village, under each district. Of the 704 community participants, **395 were female and 309 were male; a total of 227 youth were included, of whom 128 were female and 99 male youth**. 163 people over the age of 60 were included, of whom 100 were female and 63 male. The consultations also included 19 PwD (14 female and 5 male), as per Tables A5.2 – A5.7 below.

Table A5.1 Summary of total number of community participants included in consultations

Age Group	Sex		Total
	Female	Male	
18 -35	128	99	227
36 - 59	167	147	314
60 +	100	63	163
Total	**395**	**309**	**704**

Mafeteng

A total of 86 people (48 females and 38 males, of whom 28 were youth [18 female and 10 male] and 3 were PwD) participated in the community consultations carried out in two villages in Mafeteng: Motsekuoa village in 'Mamantšo Community Council, and Ha Thakanyane village in Makoabating Community Council, as per the tables below.

Table A5.2 Community participants: Motsekuoa village consultations

Location and date	Age Group	Sex		Disability (incl in Sex)		Total
		Female	Male	Female	Male	
Motsekuoa village, 'Mamantšo Community Council, Mafeteng district. 03/07/2024.	< 18	4	1	0	0	5
	18 -35	2	4	0	0	6
	36 - 59	4 (1 PwD)	3	0	0	7
	60 +	2	4	0	2	6
	Total	**12**	**12**		**2**	**24**

Table A5.3 Community participants: Ha Thakanyane village consultations

Location and date	Age Group	Sex		Disability (incl in Sex)		Total
		Female	Male	Female	Male	
Ha Thakanyane village, Makoabating Community Council, Mafeteng district. 04/07/2024.	18 -35	12	5	0	0	17
	36 - 59	16	15 (2 PwD)	0	1	15
	60 +	8	6	0	0	14
	Total	**36**	**26**	**0**	**1**	**62**

Mohale's Hoek

Two villages were selected for focus group discussions: Majapereng in the southern lowlands and Mok'hopha in the foothills. In each village, three focus group discussions were held separately with women, men, and youth. A total of 89 people participated in the focus group discussions with more females (56 percent) than males (44 percent). The youth and adults each comprised 39 percent of the participants, while the elderly was the least represented, with 21 percent. The community consultations also included two FGDs held in on 20/06/2024 in Lithakaling, in the southern lowlands, which is considered a centre of excellence locality from IACoV Phase I implementation, with 12 women and 6 men, as well as 3 female youth (ages 27, 28 and 35 – the latter was a pre-school teacher) and one male youth, aged 35, who was also a community councillor.

Thus the total number of community members participating in FGDs in Mohale's Hoek district was 111, of whom 65 were female and 46 male. 39 out of the 111, or 35% of the participants, were youth (24 female and 15 male).

Table A5.4 Community participants: Mohale's Hoek consultations

Location and date	Age Group	Sex		Total

Majapereng village, Mashaleng community council 02.07.2024 Mok'hopha village, Khoelenya community council 03/07/2024.		**Female**	**Male**	
	18 -35	21	14	35
	36 - 59	18	17	35
	60 +	11	8	19
	Total for Majapereng and Mok'hopha	**50**	**39**	**89**
Lithakaling village Thaba Mokhele Community Council 20/06/2024	18 -35	3	1	4
	36 and above	12	6	18
	Total for Lithakaling	**15**	**7**	**22**
	Total for Mohale's Hoek district	**65**	**46**	**111**

Quthing

A total of 164 participants, of whom 99 were female and 65 male, including 45 youth (21 female and 24 male) and 4 PwDs, took part in the FGDs held in two localities, namely Tsatsane, which is found in the Tosing Community Council, and Ha Pali, which is found in Mphaki Community Council. The sex and age groups are set out in the tables below.

Table A5.5 Community participants: Quthing consultations

Tsatsane			
Age Group	**Sex**		**Total**
	Female	Male	
18 -35	16	18	34
36 – 59	33 (3 PwD)	18	51
60 +	18	15	33
Total	**67**	**51**	**118**

Ha Pali			
Age Group	**Sex**		**Total**
	Female	Male	
18 -35	5	6	11
36 - 59	16	5	21
60 +	11 (1 PwD)	3	14
Total	**32**	**14**	**46**

Access to Tsatsane area is challenging, requiring a 4×4 vehicle due to its treacherous 40km gravel road with steep and hazardous curves. Pali catchment is in the Mphaki community council, in the mountainous area, primarily along the Senqu River Valley. It is situated 33 km from the tarred road of Mphaki's main market area. Access is predominantly on foot or via 4×4 vehicles.

Thaba Tseka

A total of 343 people participated in the community consultations in Thaba Tseka district; 183 females and 160 males, of whom 115 were youth (65 female youth and 50 male youth) and 12 were PwD. In Ha Maanela and Makhuleng villages, a total of eight (8) focus group discussions comprising 195 people were conducted in the week of 1 July 2024. Except for youth, all groups included people with disabilities (PWD – 6 in total). The table below summarizes the total number of people reached, categorized by gender and age.

Table A5.6 Community participants: Makhuleng village and Ha Maanela village

Location and date	**Age Group**	**Sex**		**Total**
Makhuleng village and Ha Maanela village Community Council, Thaba Tseka district. 2 to 3 July 2024.		Female	Male	
	18 -35	38	25	**63**
	36 - 59	36 (out of which 2 PWD)	55	**91**
	60 +	32 (3 PWD)	9 (1 PWD)	**41**
	Total	106	89	**195**

The two villages Ha Maanela and Makhuleng are located within the Semena constituency and falls under the Bokong community council. The areas are connected to Thaba Tseka town by a gravel road, which takes around 2 to 3-hour drive.

Community consultations were also held in Ha Setoetoe and Ha Manjara villages in Thaba Tseka. A total of 79 community members participated in the FGDs in Ha Setoetoe, from a range of age and sex groupings as per the table below. The participants included the Area Chief and several councillors. The District Administrator and district staff from the Forestry, Education, and Agriculture departments were also present, as well as the DMA.

Table A5.7 Community participants: Ha Setoetoe village

Location and date	Age Group	Sex		Total
Ha Setoetoe village, Bobete Community Council, Thaba Tseka district. 24 June 2024.		Female	Male	
	18 -35	18	16	34
	36 - 59	13	14	27
	60 and over	8	10	18
	Total	**39**	**40**	**79**

A total of 69 community members participated in the FGDs in Ha Majara village, from a range of age and sex groupings as per the table below. The participants included the Area Chief, and several councillors. The District Administrator and district staff from the Forestry, Education, Food and Nutrition Coordinating Office (FNCO), Agriculture departments, as well as DMA, were also present.

Table A5.8 Community participants: Ha Majara village

Location and date	Age Group	Sex		Total	People with disability
Ha Majara village, Thaban'a Mahlanya Community Council, Thaba Tseka district. 25 June 2024.		Female	Male		
	18 -35	9	9	18	
	36 - 59	19	14	33	2 F
	60 +	10	8	18	2 (M) &2 F
	Total	**38**	**31**	**69**	

Both villages are remote, with Ha Setoetoe situated approximately two hours' drive from Thaba-Tseka town at the end of a road that was only completed in the past year. While Ha Majara is closer to Thaba Tseka town than Setoetoe, the road is in extremely bad condition and it takes over an hour to reach the village.

3. District profiles

Table A5.9 below indicates high levels of poverty and vulnerability in the project districts. While overall national poverty fell from 56.6 percent to 49.7 percent between 2002/2003 and 2017/2018, it increased in Thaba Tseka (by 35.9 percentage points) and Quthing (by 2.1%). Thaba Tseka had the highest poverty rate amongst the country's ten districts with a poverty rate of 74.8 percent in 2017/2018, and Quthing the third highest at 56.3 percent.[191]

Table A5.9. Summary of key socio-economic variables for the project target districts

	Mafeteng	Mohale's Hoek	Quthing	Thaba Tseka
Poverty rate[192]	52.6%	56%	56.3%	74.8%
# in IPC Food Security Phase 3[193]	39, 802	40, 579	30,028	26, 067
% of people with Low Dietary Diversity[194]	44%	55%	47%	36%
HIV prevalence (15-49 years)[195]	31.9% women 15.4% men	29.5% women 16.3% men	30.5% women 17.5% men	23.4% women 17.1% men
People with disabilities[196]	10%	8.6%	4.8%	6.8%
Access to electricity[197]	33.7%	19.1%	33.1%	11.4%

3.1 Mafeteng district profile

Mafeteng district is in the western part of Lesotho, bordering on Maseru district to the north and Mohale's Hoek to the south. The landscape includes foothills, valleys, and rivers. The population is approximately 198,962, with equal proportions of males and females. There are more male youth and adolescents (55%) than females (45%), while the elderly (60+) have more females (62%) than males (38%). Around 10% of population in Mafeteng are people living with disabilities.[198] The food

[191] Lesotho Bureau of Statistics (2019) Lesotho Poverty Trends and Profile Report 2002/2003 to 2017/2018.
[192] Lesotho Bureau of Statistics (2019) Lesotho Poverty Trends and Profile Report 2002/2003 to 2017/2018.
[193] Number of people classified in Integrated Food Security Classification Phase 3 for the period May to September 2024
[194] Lesotho Vulnerability Assessment Committee (LVAC) 2024
[195] Lesotho Population Based HIV Impact Assessment 2020
[196] UN Lesotho Common Country Analysis report, 2023
[197] Lesotho Household Energy Consumption survey; 2017
[198] UN Lesotho Common Country Analysis report, 2023

poverty rate is 26.7%.[199] Regarding nutritional status of children 6 – 59 months, stunting is at 35.5%, 10.8% are underweight, and 44.5% are anaemic.[200] Mafeteng is second highest in Lesotho for intimate partner violence (IPV), where 67.9% of women have experienced IPV, and third highest in terms of the percentage of men perpetrating the same, at 43.3%.

Mafeteng's economy is largely based on agriculture, with maize, sorghum, and beans the main crops, and livestock farming (cattle, sheep, and goats) is also significant. Many residents are involved in subsistence farming, though some work in small businesses, run small informal trade on roadside tables, or are employed in the public sector. The district has a rich cultural heritage, with traditional Basotho customs and practices being an integral part of daily life and cultural festivals and events celebrated throughout the year, showcasing traditional music, dance, and crafts. There are several vocational training centres and a few tertiary education institutions. The district is also home to the Lesotho National Federation of Organisations of the Disabled (LNFOD), and nutrition clubs such as Rethusehile Nutrition Club.

Mafeteng has had recurrent and prolonged dry spells over the years and there have been suspicions (unconfirmed) of possible desertification. Land degradation has also increased although the rate has been slowed by various interventions.

Healthcare facilities include Mafeteng Hospital and numerous clinics providing primary health care services. The district is connected by a network of roads, some of which are paved. Public transportation mainly consists of minibuses and taxis. Access to utilities such as electricity and clean water is available in urban areas, though rural areas have limited access.

3.2 Mohale's Hoek district profile

Mohale's Hoek district is situated in the southern part of Lesotho sharing borders with South Africa's Eastern Cape. The district hosts a total of 164,880 people, comprising 81,349 males and 83,531 females, constituting 8.2 percent of the country's total population. The youth make up 7.2 percent of the population, with a slightly higher percentage of males (7.4%) compared to females (7.0%). Inhabitants are distributed across four livelihood zones: foothills (9%), mountains (17%), southern lowlands (63%), and the Senqu River Valley (11%). The district has a population density of 222.9 people per square kilometre, with 714 square kilometres of arable land. While Mohale's Hoek, the only town in the district, hosts most services, these are difficult to access for populations in mountainous areas where roads are lacking. There is only one tarred road in the district. Over 80 percent of households have access to clean water, mainly from communal taps.[201]

Unemployment is high, with 69 percent of people unemployed, and 56 percent living in poverty.[202] Mohale's Hoek ranks fifth highest in gender-based violence, with a rate of 63.9 percent.[203] More women face GBV (49.5%) compared to men (28.6%).[204] HIV prevalence stands at 22.8%, with higher rates among women (29.5%) compared to men (16.3%) aged 15-49.[205] The net migration rate is -13.2, indicating more people are leaving the district than entering.[206] The district accounts for 13.8 percent of the country's international migration, making it the second largest by district.

Income and food sources are highly aligned to the livelihood zones:

- **Foothills Zone**: Highly productive agricultural zone used for grazing and cultivation. Main sources of income include wool, mohair, and crop production for middle and better-off households, while poorer households depend on labour exchange, casual labour, and brewing. Main crops include maize, sorghum, and beans. The zone faces climatic hazards such as droughts, frost, heavy rains, livestock diseases, and market-related shocks.
- **Mountains Zone**: Isolated and least densely populated. Livestock and crop production are main sources of food and income. Main crops include wheat, maize, sorghum, potatoes, and pulses. The zone faces hazards such as drought, pests, hailstorms, and early frost.
- **Senqu River Valley Zone**: A thin strip along the Senqu River where mixed agriculture (crop production and livestock farming) is the main livelihood. Main crops include cereals and pulses. The zone suffers from poor soil fertility, overgrazing, and climatic hazards such as drought, pests, and environmental degradation.
- **Southern Lowlands Zone**: Characterized by soil erosion and environmental degradation, with shallow and infertile soils. It is one of the driest regions, with erratic rainfall patterns affecting agricultural production and livestock keeping. Main income sources for poor households include casual employment, remittances, and self-employment.

Monthly mean maximum temperatures in summer range from 16.4°C to 19.9°C. Monthly average precipitation ranges from 24.5mm to 66.1mm, with an annual precipitation of 1,330mm, one of the lowest in the country.[207] Agriculture is rain-fed with low use of improved techniques. Food production has been declining due to various hazards and declining agricultural participation. In 2023, maize yield was 0.15mt per hectare, expected to decline further.[208] Livestock production has also decreased. The district has 71,149 cattle, 204,681 sheep, and 113,968 goats, owned by 67 percent of men compared to 33 women.[209]

Over 20 percent of the population remained in phase 3+ of the Integrated Food Security Phase Classification (IPC) over the last five years.[210] More than 50 percent had inadequate food consumption and low dietary diversity, leading to stress and crisis coping strategies. Mohale's Hoek in category 1a of Integrated Context Analysis with high negative ecological change indicating high exposure to climatic shocks and recurrent food insecurity.[211] Stunting among children under five stood at 44.7 percent in 2024, a 7% increase from 2014. Anaemia in children aged 6-59 months is at 56.1 percent.[212]

3.3 Quthing district profile

[199] Lesotho Poverty Mapping Report 2017 – 2018
[200] LDHS, 2024; and LDHS, 2014 for anaemia
[201] Lesotho Vulnerability Assessment Committee
[202] Lesotho Labour Force 2019, Lesotho poverty trends and profile report.
[203] The Gender Based Violence indicator study, 2014
[204] Bureau of Statistics (2023). 2021 Lesotho Demographic Survey. Analytical Report "Volume IV Gender Based Violence". Bureau of Statistics. Maseru.
[205] LePHIA, 2020
[206] Lesotho Demographic Survey 2021
[207] Environment report 2021
[208] Lesotho Crop Forecasting 2023
[209] Lesotho agricultural production survey 2021/22
[210] Lesotho Vulnerability Assessment Committee
[211] Lesotho Integrated Context Analysis, 2015
[212] Lesotho Demographic Health Survey 2024

Quthing, approximately 180km by tarred road from the capital city, Maseru, borders on the Eastern Cape Province of South Africa to its south, Mohale's Hoek District in the north and Qacha's Nek District in the northeast.[213] The district has a population of approximately 124,048. The total area of the district is 2,916, 9.61 percent of the country. The population density in the district is 43.00 persons per square kilometre, compared to 62 for the country. Unemployment is high, with 70 percent of people unemployed, and 56 percent living in poverty.[214] Quthing is one of the top districts with high cases of gender-based violence, with more women, and girls experiencing GBV compared to men. Child stunting, a sign of chronic malnutrition, remains high at 38.8% and 64% of households in this district are not able to meet the nutritious diet requirements.[215]

The mountains form the least productive part of the district predominantly good for livestock grazing; while the Senqu River Valley forms a narrow strip of land that flanks the bank of the Senqu River and penetrates deep into the highlands. The soils within this zone vary from rich to very poor. Livelihoods are predominantly agriculture based with growing of crops and rearing of livestock as key. Snow is common in the higher peaks in the mountainous area. All livelihood zones depend on livelihood strategies such as casual labour, remittances, social grants, self-employment (trade and artisanal), agriculture (crop &livestock) and employment. Agriculture and related labour activities as well as non-agriculture casual labour are major sources of livelihood security. The success of agriculture thus has a significant bearing on the vulnerability of poor households who also depend on government social protection grants.

The average annual rainfall is 67mm, most of which is received during the rainy season of October to April and winter period May-July. The region has a temperate climate because of the elevation and is humid during most parts of the year. The temperature varies from 28 °C in summer to 2 °C in the winter. Quthing is one of the driest districts in the country and drought is the most widespread hazard. It is normally faced with multifaceted food insecurity and related challenges due to declining agricultural production. The IPC (Integrated Food Security Phase Classification) study of 2023 shows that at least 20% of households in the district are at phase 3 of poverty and therefore need continuous humanitarian support.

3.4 Thaba Tseka district profile

Thaba Tseka, a mountainous district with one of the lowest population densities, with around 28 people per square kilometre, has a population of approximately 135,347 (34,000 households), of whom men comprise 49% and disability prevalence is at 1.8%. Youth make up 36% of the population, the highest among all age groups. Life expectancy in the district is around 41 years (39 for males and 45 for women)[216].

Thaba Tseka is characterized by barren and rugged mountains. Rangeland degradation linked to livestock numbers and management impacts on the functioning of wetlands responsible for water production for the Lesotho Highlands Water Project, which transfers water to South Africa. The district has two agro-ecological zones: the mountain zone, which hosts 87% of the population, and the Senqu River valley. Livelihoods are predominantly agriculture-based, with wheat, maize, peas, and beans being the key crops grown. Livestock rearing, including sheep, goats, cattle, donkeys, horses, and poultry, is also significant. Unemployment is high and many young men enter illegal mining activities in South Africa, leading to high levels of deaths from being trapped underground, or from gang killings associated with mining. Thus many young women in the district are widowed.

Over the last five years (2020 to 2024), 21% of the population has remained in Phase 3+ of the Integrated Food Security Phase Classification, indicating a crisis or emergency situation. Key drivers of this food insecurity include recurrent droughts, heat waves, late rains, and heavy rains that negatively affect crops and reduce harvests. Chronic malnutrition (stunting) is rife in Thaba Tseka; 55% in 2009, 40% in 2014 and 46.3% in 2024[217]. Iron deficiency anaemia is a huge concern with 53.5% of children 6-59 months affected. Minimum Dietary Diversity is the lowest in the country with less than 11% of children eating at least four food groups. 23.4% and 17.1% of women and men respectively lives with HIV in the district. GBV is recognized as one of the drivers of HIV in the country and poses a significant developmental and economic challenge in Thaba Tseka. The district has the highest lifetime Intimate Partner Violence (IPV) rates in the country, with 69% of women reporting such experiences, as well as the highest teenage pregnancy rate at 22%[218] and a notable incidence of child marriages.

Most urban households have piped water in their dwelling or yard, while, rural households mainly rely on public taps, followed by unimproved sources. Rainwater harvesting is relatively low. Some households collect water from a river for domestic purposes including cooking and drinking. Despite hosting two tertiary institutions (Paray School of Nursing and Thaba Tseka College of Higher Education) and two vocational schools (Manteko and Thaba Tseka Vocational), the district lags in educational achievements: 26% of men have no educational attainment compared to 2% of women.

4. Findings from the community consultations

Section 4 is based on the primary data collected during the community FGDs. The findings are disaggregated as much as possible according to gender, age group, livelihoods and vulnerability groups. Gender and protection issues, including gendered division of labour, women and youth participation, and access to resources, and issues concerning people with disabilities and elderly people are mainstreamed into the findings' sections. Reporting is provided per district, with an overall synthesis of the district and community level findings provided in section 6.

4.1 Mafeteng

4.1.1 Basis of livelihoods

The most prominent sources of livelihoods are crop production and livestock rearing, including small stock (sheep and goats), work in small businesses, running of small informal trade on roadside tables. Across all the consultation groups additional sources were raised and majority agreed on crop sales, beer brewing, domestic work and remittances in the village. The youth mentioned that there is lack of diversity in terms of livelihood sources, as some coping mechanisms have now evolved into normal livelihoods like the selling on roadside tables. The men indicated that lack of job opportunities in the area lead to the FFA activities being the only engagement that most able-bodied members of the community look out for. The women indicated that the men who have found jobs elsewhere help out by sending remittances back home, but this is not in large numbers.

Land and livestock are registered under both men and women. Co-ownership is uncustomary hence the decision-making powers in terms of management of land and water resources rest in men who usually make decisions for the purposes of livestock. Women reported that they use the grasses from rangelands to make

[213] The district is divided into six constituencies and six community councils, namely Mphaki, Telle, Tosing, Urban, Mjanyane and Qomoqomong.
[214] Lesotho Labour Force 2019, Lesotho poverty trends and profile report.
[215] Lesotho Fill the Nutrient Gap Report; 2020
[216] 2014 Lesotho Demographic Health survey report
[217] Lesotho Demographic Health Survey reports
[218] Lesotho DHS 2024 key indicator report

household utensils. Regarding agricultural practices, the respondents indicated that they used ox-drawn draught power and tractors for ploughing. Ploughing with a tractor costs M550.00 per acre, while ox-drawn draught power costs M500.00 per acre. The respondents also showed that since there is a lack of seeds in their silos, the alternative is to purchase Panna genetically-modified maize seed costing M400.00 per 10kg. The community of Ha Thakanyane further mentioned that the market is not easily accessible, with longer distances travelled and high transport costs incurred.

The community of Thakanyane village depends mostly on their rangelands which are used for livestock feeding and harvesting of herbal medicines by traditional healers. These rangelands have however shown evidence of stress due to overgrazing that caused bare land and loss of biodiversity hence leading to gully erosion. Thakanyane community has more natural shrubs such as cheche, sehalahala, however most are planted trees owned by individuals and community which are purchased for firewood.

4.1.2 Food security, nutrition, and access to basic services

Over the past five years Mafeteng district has experienced a crisis situation with more than 20% of the population in Integrated Food Security Phase Classification Phase 3. In the current period (May to September 2024), the district has 31,842 people classified under IPC Phase 3. In terms of malnutrition, no severe cases were reported in both communities visited. The men and youth at Ha Thakanyane indicated that it is normal practice to allow the children to have 3 meals a day even when all other household members are having one or two meals a day. In this way, they contribute toward the reduction of underweight and stunting problems.

Protection issues

The food insecurity situation in the communities often leads to adult negligence, teenage pregnancy, underage sex-work and rape; which were raised as concerns in both communities. Parents leave young children on their own either because parents have gone out to fend for the household or have gone to the bars/ taverns. This habit exposes children to sexual predators and use of drugs and alcohol at young age. Some of these children end up trading in sex to feed themselves and their siblings as there are no parents to take care of them. The communities mentioned that most rape cases go unreported due to stigma and because some parents resort to take monetary compensation from the perpetrators. The men indicated that some parents especially women arrange for older men to engage in sexual activities with their young daughters in return for payment and this has made young girls to take rape as a norm or a kind of initiation they must go through. Boys in this community are exposed to abuse of drugs and alcohol as well as child labour. Boys are usually hired as herders and other casual jobs to provide for their families. Gangsterism was also reported to be on the rise in the community which are mostly joined by boys and men. Movement of women and girls is not free as a result of the prevalence of rape which unfortunately is seldom reported.

Financial services: There are a few registered micro-lenders in both communities and the main mobile network service providers (Econet & Vodacom) have service coverage, and also provide financial services. Other than that, people have their own unregistered moneylending schemes. Water access in both communities was reported to be a challenge as nearby water sources have dried up and now communities must travel a little longer to obtain water for household purposes. The men in the communities reported that recently one of the main chores in which they engage the use of their livestock is water collection. They indicated that due to unsafe conditions for their girl children to fetch water, they prefer to use oxen and small carts pulled by donkeys ('Scotch carts') and make once-off trips not daily trips that expose their daughters to sexual predators and early marriages through eloping. Road infrastructure is destroyed with every rainy season and there are limited resources for maintenance, hence the poor condition of the road leading to Ha Thakanyane, as well the access roads within Motsekuoa.

4.1.3 Climatic changes observed, perceived impacts, and environmental issues

Climatic changes observed: erratic rainfall patterns – late onset, increased dry spells, heavy rains; increased temperatures; late frost. Changes in cropping season and practices: The various groups from both villages mentioned that in the past, before most climatic changes were noticeable, cropping season normally started in August when Spring/ Summer rains began; however, this has since changed overtime as rains only start around end of October or in November and when they do, they come as heavy and flash rains that wash away seeds and crops that are at early stages of germination. Thus, farmers must incur expenses of re-seeding which sometimes they can no longer afford. Water scarcity: The women from both communities cited that scarcity of water was one of the environmental problems they come across that affects access to clean water for domestic chores and irrigation water for their homestead gardening. The group indicated that while impacts of climate change affect everybody in the community; they adversely affect women, girls, children, disabled and the elderly who in times of drought travel long distances to fetch water. Exotic trees reducing water availability: The Ha Thakanyane community also observed that ever since planting of forest trees especially on the hills also where water sources are located, most sources have since dried up and they attributed this to the type of trees planted (exotic eucalyptus and poplar trees) as they said these trees are known to consume a lot of water. Degraded rangelands: Groups mentioned declining grazing lands which brings about conflicts within villages because most households rely on rangelands for animal feeding. Impacts on agriculture and livestock: The observed climatic changes have a direct bearing on agricultural practices and production. Of great observation was warmer temperatures in winter months accompanied by rains, to which the group raised concerns that frost delays to set-in, which is vital to help main crops such as maize to fully ripen. The communities further mentioned that they experience severe increases in temperature coupled with dry spells that affect crops at vegetation and grain-filling stages. They indicated that even though frost comes late recently, the cold fronts still affect the crops, and most households experience poor production. They observed emergence of animal and crop diseases and pests in warmer and hotter months that are now difficult to manage and treat using conventional methods that used to work for them. Health impacts: The groups observed a surge in water-borne diseases among people and animals. Flu and cold strains were also mentioned as being common lately in summer months which is abnormal as those are usually winter illnesses. Skin problems especially in young children were also reported as becoming a problem in summer which the group attributed to hot and dry conditions.

4.1.4 Support from Government entities and external agencies

Government supports the community through its extension services from the Ministry of Agriculture, Food Security and Nutrition (MAFSN) and the Ministry of Environment and Forestry (MEF). There are people within the communities who receive social safety-nets (old-age pension, disability, public assistance and child grants) from Social Development as well as school feeding at the local Primary School which is provided by Ministry of Education. There was also reported support from GoL through extension delivery by demonstration and monitoring of activities being implemented either by the recent project or government initiatives. Apart from that the community would receive vegetable and crop inputs packages from government through Food Agricultural Organization (FAO).

4.1.5 Support from the IACoV project – perceived benefits and challenges

IACOV started operating in the villages from 2020. Members of the community took turns to participate in the fato-fato (Food for Assets – FFA) activities that included rangeland rehabilitation, land reclamation, forestry, and communal and homestead gardening. Each participating household received M1,200.00 per month for a duration of three months. The group reported that although at times payments would delay coming, they brought significant contribution to households' economies.

The project provided agricultural inputs packages (shade nets, vegetable seeds, short-cycle livestock - chickens) and capacity building in terms of trainings on fire control in the rangeland, first aid and training on land rehabilitation, in collaboration with government departments. Furthermore, IACOV in collaboration with Disaster Management Authority (DMA) launched a 3-month Anticipatory Action response to address the predicted drought for the 2023/2024 in which the community were mobilized to construct check dams and keyhole gardens within their community for conditional cash transfer. The respondents showed that they prefer mobile cash transfer modality as opposed to Unayo. The group said that challenges with the project were mostly around delayed payments, use of Unayo and duration of engagement which they said was too short as they considered fato-fato as form of employment, not a relief activity. Men, women, and youth over the age of 18 were given equal opportunity to participate in rotational fato-fato. Disabled, child-headed and eligible elderly households were represented by able-bodied people they had an agreement with. The group reported that not all elderly households were eligible because of old-age pension they receive, and only those with huge households could be allowed to participate.

4.1.6 Coping mechanisms and adaptation strategies

Coping strategies in both communities include begging and borrowing by the poor households in times of stress equally by men, women, youth, elderly disabled and children alike. Some community members employ negative strategies whereby people trade in sex and get monetary compensation instead of reporting crime. Women and girls were reported as mostly vulnerable to these negative coping strategies. Theft of crops and chickens were also raised as means employed by some members of the community, especially the youth.

4.1.7 Adaptation gaps and recommendations for support

Gaps mentioned related to insufficient knowledge of and support for climate resilient technologies to address low levels of agricultural production and livestock diseases; as well as lack of propagation of indigenous knowledge related to early warning for climatic hazards.

The following recommendations were made: (i) Strengthening and ensuring sustainability of backyard gardening to support general crop production; (ii) Strengthening water harvesting techniques and innovative irrigation methods for both vegetable and crop production, and to benefit livestock and rangelands; (iii) Land rehabilitation through creation of silt traps and education on climate smart agricultural techniques initiatives must be scaled up; (iv) indigenous knowledge must be documented and shared through various channels as it enables communities to relate well to changing climatic conditions as they compare to how things have been in the past; (v) Male and female youth recommended more support for off-farm income generating activities that include art crafting, car washing, and carpentry.

4.2 Mohale's Hoek

4.2.1 Basis of livelihoods

Agriculture did not seem to be the primary source of food and income in the lowlands, with only 4 out of 10 households planting their fields. In contrast, in the foothills, agriculture remained the major source of income and food. The main crops planted in the villages were maize, beans, and, to a lesser extent, sorghum, which are all summer crops. A few households in the lowlands engaged in winter cropping, planting wheat and peas, while those in the foothills did not due to unfavourable weather conditions. Vegetables such as spinach, cabbage, mustard, rape, beetroot, and green pepper were commonly grown, primarily in keyhole gardens. Households also had peach, apricot, and apple trees. Both men and women-headed households planted the same vegetables and crops. However, most female-headed households did not own animals and relied on sharecropping with other households that had drought power. Households with HIV-positive members planted the same crops as other households, and people living with HIV, disabilities, and the elderly lived with family members who also planted the same crops. Youth participated in planting by helping their parents with cultivation, weeding, and harvesting. A small proportion of youth who were household heads engaged in sharecropping due to a lack of inputs for planting. The elderly tended to work their vegetable gardens.

Productivity in the community was low, with most households producing primarily for consumption. A few households in the foothills were able to sell their produce to other community members or nearby villages. Households did not practice conservation agriculture, having found it unsuitable due to dry land and labour intensity. They relied on draught power, with some wealthier households in the lowlands using tractors. Not all households owned animals; those without animals had to borrow or hire them, typically at a cost of approximately USD 39 per acre. Most households owned 1-2 acres of land. Households used seeds from their own production rather than improved seeds and did not use fertilizers, depending on rain for irrigation.

Households kept cattle, sheep, goats, pigs, chickens, geese, donkeys, and horses. In families where both spouses or children were present, women and girls cared for chickens and pigs, while men and boys looked after cattle, sheep, goats, donkeys, and horses. Elderly-headed households followed the same pattern of livestock ownership. Proof of ownership documents for land and livestock were generally registered by men, although widowed and single women also had these documents. Decisions on what to plant and when to sell animals such as cattle, sheep, and goats were made jointly by men and women in the household. However, in the foothills, men had the final say. Women primarily decided when to sell chickens and piglets.

Other sources of income and food included seasonal food-for-asset assistance supported by the Government and World Food Programme (WFP). Households hosting elderly individuals and people living with HIV participated in these programs just like other households. People with disabilities relied on their household members to work for them. Youth in the lowlands were often reluctant to participate in WFP assistance because registration was done in the name of the household head. Many families had at least one member who migrated to South Africa for work, such as domestic work and farm labour and sent remittances back home. Youth and women were the most likely to migrate. Livestock sales and livestock products (wool and mohair) were significant income sources, particularly for male-headed and better-off households. Women mainly sold chickens and piglets. Both women and men, along with boys and girls, from poorer households engaged in casual labour and beer brewing. Additionally, women and girls collected firewood. Crop sales varied based on household wealth, with wealthier households typically selling grains and beans in larger quantities. In contrast, poorer households primarily sold vegetables from their home gardens. Households with people living with disabilities, as well as those hosting orphaned and vulnerable children, received government grants. Elderly households received pensions from the government.

4.2.2 Food security, nutrition, and access to basic services

Typically, in the lowlands, the lean season started as early as July-August and lasted until the next harvest, roughly ten months later. In the foothills, the lean season began in October-December. From January to March, food deficits are usually offset by consuming green crops provided the year would be favourable. During the 2023/24 planting season, extreme heat destroyed the crops, eliminating the availability of green consumption and reducing harvest. Most households relied on purchases for food from the markets that are located within the village vicinity, allowing communities to access essential needs. Prices are high, especially for maize meal, cooking oil, and paraffin. High prices coupled with low-income opportunities rendered many households' food insecure. Children's diets were poor and primarily ate papa (maize meal), moroho (green vegetables), and motoho (sorghum porridge). Incidents of diarrhoea among children were high and many had ringworm.

Energy sources: Almost all households depended on wood and shrubs for cooking and heating, thereby depleting the trees and indigenous shrubs. Depletion of shrubs and animal excreta 'lisu' used in past as firewood. Dry leaves of aloe ferox 'lekhala' collected uphill are used as firewood alternatives in Lithakaling and elsewhere. Both women and men in Lithakaling share responsibilities in collecting firewood, though advocacy for more equitable sharing of household chores is needed as some men are reluctant to assist.

Water supply: Both villages of Majapereng and Mok'hopha had water supply systems that were leaking and lacked maintenance, communities were not able to access clean water. In Lithakaling, the project team observed the sand dam construction in the water course below the project site. This is the largest sand dam in Lesotho and is being constructed to international standards with IACoV funds by an experienced contractor (over 8 sand dams, including in Bethel and Thaba-Tseka) linked to a vocational training institute. ESS procedures were followed and the Department of Environment has made several site visits. The dam wall is approximately 2 metres in height with outlets to ensure ecological stream flow. Perforated pipes covered with a geotextile (membrane) will lead clean water that has been filtered through the sand into the 8,000 litre tank that is being constructed out of available stone and will have a concrete slab on top. A solar panel and pump are being installed to take the water uphill to the project site. Little maintenance is needed; questions were raised regarding potential impacts of / on riverbank erosion.

Sanitation: Both Majapereng and Mok'hopha lacked toilets, communities were using the bush, which poses risks to the unprotected water sources.

4.2.3 Climatic changes observed, perceived impacts and environmental issues

Climatic changes observed: Shifting rainfall patterns in both the lowlands and foothills, recurrent extreme high temperatures, drought, dry spells and heavy rains, prolonged winter conditions, strong winds and dust storms, which previously occurred in August and now unpredictably occur even in September-October,

Shift in seasons: Traditionally, rains would begin in August, allowing for land preparation. Currently, planting starts in December due to rains that begin in November-December. Only sorghum, due to its drought-tolerant nature, could be planted in October. Prolonged winter conditions extending into September also contributed to delayed planting.

Reduced agricultural productivity: Recurrent extreme high temperatures, dry spells and heavy rains have reduced production over the years, leaving fields eroded and bare. During heavy rains, fields were often washed away. Many households were no longer engaging in agriculture, with only 4 out of 10 households in the lowlands still participating.

High pest infestations among crops and fruit trees have also been observed. In both the lowlands and highlands, communities have recently observed kikuyu grass and unfamiliar species of pests in their fields and vegetable gardens, which they did not know how to treat or manage, further complicating agricultural activities.

Water scarcity, rangeland invasion and livestock decline: There was lack of water for animals, especially in the lowlands. Additionally, these conditions have led to diseases in animals; for instance, in February-March this year, sheep in the lowlands were affected by blue tongue. Rangelands in the foothills were encroached by invading species, while rangelands in the lowlands were highly degraded with dry coastal barren land. Animals in both zones were in poor body condition. Over the years, these conditions have resulted in animal deaths and a reduced number of livestock. Typically, a household would own 15 cattle, but this has reduced to 6. Sheep numbers have declined from 40-50 to 15-20, and goats from 15 to 5.

Damage to houses and infrastructure from strong winds and dust storms, including solar panels used for pumping and distributing water in Majapereng (lowland), which were destroyed. Water sources, especially in the lowlands, have dried up, forcing households to travel long hours (3-5 hours) to obtain water from unprotected sources.

Soil erosion and poor soil absorptive capacity resulting from drought and torrential rains, contributing to desertification in many parts of the district.

Firewood collection challenges: Community members – especially women and girls – are forced to collect firewood from remote uphill areas that are difficult to access for the elderly, people with disabilities and heavily pregnant women. There is depletion of rich shrubs and animal excreta 'lisu' used in past as firewood.

Some of the environmental problems were caused by poor land use and a lack of expertise within the communities. For example, efforts were made in the past to remove Sehalahala (Wild Aster), which seemed to be the main invader, but due to a lack of expertise on how to control and manage it, it keeps coming back. The extinction of some species, such as Khaka (helmeted guinea fowl), occurred because communities were killing and eating them.

Disruption to traditional communal practices: The youth in the Lithakaling FGD noted that extreme food insecurity has increased selfishness and disrupted traditional practices of communal sharing, such as sharecropping and 'matsema'. Letsema (plural matsema), is a practice where communities work collectively and share food. This has affected poor individuals mostly, widowed women, and young couples without land.

Water scarcity compromising WASH practices: Increased load and long waiting times for fetching water have compromised proper WASH practices, with drinking water often affected, as some of the water sources that were closer have dried up (Lithakaling). Proper caring practices and young child feeding is compromised when women leave children behind for an average of 1 to 2 hours to collect water. However, no incidences of domestic violence or any GBV acts connected to this challenge was reported.

Widening economic disparities: Climatic fluctuations have widened the gap between poor and wealthy households. Wealthier households cope better with climatic variability due to diverse and reliable livelihoods such as formal employment.

Vulnerable populations most affected: People with disabilities, pregnant and breastfeeding women, the elderly, are more affected by climatic fluctuations due to their physiological status. Youth are mostly affected because of high unemployment rates and entrenched poverty. Livestock owners are also significantly impacted due to deteriorating rangelands.

4.2.4 Support from Government entities and external agencies

Several Government ministries seldom visited the two villages of Majapereng and Mok'hopha. Some years back, the Ministry of Forestry and Environment trained communities in the foothills on beekeeping and conservation measures, such as constructing stone lines. Extension workers from the Ministry of Agriculture last visited the lowland community of Majapereng in February 2024 to help address the blue tongue risk in livestock due to heat. The Disaster Management Authority (DMA) visited the community to disseminate drought risk-related messages or facilitate community-based targeting during lean season or crisis response periods. The DMA and Forestry supported communities with food-for-asset creation and public works, though the number of participants was usually low relative to the need. Currently, the government, through the DMA, engaged 6-25 people in a village for small public works activities for two weeks, offering a payment of USD28 to respond to the current food security crisis. The Ministry of Gender and Social Development supported orphaned and vulnerable children with grants.

Both Majapereng and Mok'hopha had village health workers and health posts visited occasionally by health staff, but residents often travel long distances to reach the nearest health centre. In the lowlands, other NGOs previously implemented programmes but have since phased out. Karabo ea Bophelo educated and trained communities on good nutrition. Centre for Impacting Lives (CIL) focused on children's well-being, providing food, clothes, toiletries, and seeds to their families. Agricultural Restoration and Conservation Organisation (ARCO) focused on youth, providing seeds, shade nets, and livelihood skills. In the foothills, Catholic Relief

Services (CRS) trained communities on irrigation and keyhole gardening, while the Food and Agriculture Organization (FAO) provided groups of youth with water tank for irrigation.

Mobile network providers include Vodacom, which is the most reliable, as well as South African networks such as MTN and Cell-C. The Econet network is weak. Local radios were available including Radio Leseli, a South African-based station.

4.2.5 Support from the IACoV project – perceived benefits and challenges

For Majapereng and Mok'hopha, conservation measures such as stone lines and gully structures seemed to support the recovery of vegetation and land. However, in the foothills, gullies were not recovering due to a lack of technical expertise. Keyhole gardens provided vegetables, though during extreme high temperatures, the vegetables dried up despite the use of shade nets. Chickens provided eggs, but many died in the lowlands. The extension workers' follow-up on activities and monitoring is weak. According to the communities, this lack of follow-up was why many chickens died, as they did not know how to manage diseases. Technical support for conservation measures was also limited, which hindered vegetation recovery in some areas. Cash assistance during the lean season helped in reducing food gaps and food consumption improved, with the preferred cash delivery modality being through banks.

In Lithakaling, both women and men expressed appreciation for the project activities but indicated they had suffered when the CBT stopped as they could not meet basic needs like toiletries. Main benefits noted by both women and men were change of the project site from highly degraded to more re-vegetated, with even the dongas starting to heal – the most important cause for this was stone lines and stone structures in the dongas and keeping animals from grazing in areas under rehabilitation; growing vegetables and selling any excess; increased HH nutrition and food security from vegetables, fruit trees, small cycle livestock like chickens (eggs). Diversification of vegetables – beetroot and carrot were introduced by project as previously only leafy green vegetables were grown. Women focused more on nutrition and noted 'colours of the plate' indicating they had received the nutrition awareness raising.

Main advancements at Lithakaling were being supplied with a dryer for fast drying of fruits, vegetables, and herbs; community gardens and greenhouses established for year-round leafy green production; poultry production for eggs and additional revenue; and rabbit production initiated. Harvesting of fruits has started and all people benefit: children 6 months to 1 year, from 2 to five years supply is often done in pre-schools and fruits are part of the young children's menu. For children in primary school, supply is also to schools on weekly basis. For elderly who cannot longer reach the project site, distribution is done to their households too.

Nutrition clubs were established at community level where women, including pregnant and breastfeeding women, and men learn about food and nutrition. This has changed mindsets and eating and caring practices, with dietary diversity practiced by all households except a few that are 'lazy'. Clubs promote better interaction of men and women and challenge some gender stereotypes regarding child and maternal health. The group would be receiving training from the MoA under the project on compost making to improve soil condition.

Skills development trainings received included bookkeeping training with both genders benefiting.; trainings on cottage industry - plastic recycling, crocheting, weaving, grass work, beads - for women and men including youth; exposed to various government ministries e.g. cottage and nutrition trainings were done by Ministry of Agriculture and conservation trainings led by Ministry of Forestry; trainings were conducted at a nearby school or project site facilitating easy reach including for the elderly. However, people with disability could not reach due to unfavourable terrain.

Intangible benefits such as change in mindset were also noted, e.g. a woman said, "Before the project, we did not care but now each household has planted fruit trees." Also awareness of the need for sustainability planning. The project has promoted community solidarity and improved interactions between women and men, and the project site serves as a recreational centre to reduce boredom and depression, with voluntary visits from both women and men.

Challenges noted were time spent at the project site which reduced time available for seasonal activities in fields such as weeding. However, the group could agree to reduce the time spent at the project site when necessary.

Management of the Lithakaling group: There are 160 people in the group, with 7 on the management committee (1 male and 6 female), chaired by a woman. There are 3 sub-committees: Range Management, Management of vegetable plots, and Management of pigs. No major conflict was reported, with minor conflicts being settled via the sub-committees. The youth group noted recent conflicts due to lack of clarity regarding resource sharing especially generated revenue from selling of various items such as vegetables. The group has a vision, as explained by one of the men, who said, "We are dedicated to come to the centre every day, as we see something that will sustain our livelihoods into the future." Having fruit trees at home takes some of the pressure oof them coming to the centre. For security, there is constant presence at the site during the day, and a guard at night. The centre is considered as their training centre, with activities duplicated at the HHs. The group endeavours to produce enough at the centre to earn income. They have sold grass for roofing from the rehabilitated areas, vegetables, bottled fruit and chutneys, amongst others. No figures were provided for income earned. However, the office building was constructed using the group's savings. As the CBT incentives have now stopped (group is considered to have graduated), they can sustain their operations by selling grass, vegetables, bottled peaches, etc. The group opened a savings account with a mobile service provider. Youth said their suggestions were not considered, such as the recent proposal to adopt organic manure production as an innovation learned in one district. Power dynamics favoured adults over youth, leading to youth voices being ignored.

4.2.6 Coping mechanisms and adaptation strategies

Communities in the foothills seemed to apply more mechanisms and coping strategies than the lowland counterparts. Some households used mulching in their vegetable gardens to protect moisture and some depend on composed manure. They preserved food such as peaches and vegetables. They adopted hipped roofing to protect houses from heavy winds. Credit and savings schemes were available in the village. Both communities used shade nets and keyhole gardens. In the lowlands they had dams that did not keep water for a long time especially when its dry.

Both Majapereng and Mok'hopha adopted negative livelihood coping strategies such as withdrawing children from school, many children worked at a young age, two parents within a household migrating to South Africa and leaving children to head the families (neglecting children). In Majapereng (lowlands) young girls engaged in sexual activities for money and cases of theft and breaking were common in the village.

Lithakaling has adopted a range of adaptation measures under the IACoV project, as described above.

4.2.7 Adaptation gaps and recommendations for support

Gaps

- In Majapereng and Mok'hopha community members were not aware of adaptation strategies; even where adaptation strategies were available, communities did not have the capacity to implement and sustain them.
- Technical capacity from government stakeholders was limited and partnerships among stakeholders were not evident.
- Integration of activities was lacking.
- There was a lack of local ownership of community-based participatory plans.

Recommendations

- Communities should use local adaptation plans, with clear roles and responsibilities and monitoring framework.[219]
- Capacity assessment of local communities need to be done, to determine their capacity to implement the plans and devise appropriate capacity interventions.
- Extension workers and other Government staff need to be capacitated to support the communities.
- Strong partnerships should be formed to support local adaptation plans.
- Climate-smart techniques should be strengthened coupled with improved agriculture techniques, such as use of drought-tolerant seeds, short variety seeds, water harvesting techniques, climate smart agriculture. This should be accompanied with associate training and provision of non-food items where necessary.
- Support to food preservation.
- Special focus should be given to all farmers on market access activities, building upon the support from IACoV on poultry and vegetable production at household and community levels.
- Early warning system should be strengthened e.g. by capacitating village disaster management teams, such that climate services information can be accessed by all so that communities are able to adopt recommended practices.
- The Lithakaling group made various specific requests: fencing for the area (cannot afford this on their own); tractor / ripper to break up hard cap layer on some fields; training on sandstone brick making; support structures for vineyard (those in place have rotted); herbicides to reduce weeding time; business management skills and bookkeeping.

Specific recommendations made by youth in Majapereng and Mok'hopha were:

- Mainstreaming climate risk considerations into the land rehabilitation activities, as the construction and durability of most of the activities are adversely affected by heavy rains and strong winds.
- Innovative approaches to land rehabilitation, such as soil conservation skills, donga rehabilitation, brush control, building of stone lines, practicing rotational grazing, and conservation agriculture.

Specific recommendations made by youth in Lithakaling

- Leadership and Youth Engagement: Allocate a specified percentage of committee positions to youth for effective engagement and participation.
- Youth Entrepreneurship: Promote youth entrepreneurship initiatives within projects and design targeted youth packages – for example, agricultural or entrepreneurship grants or subsidies similar to the SADP specifically targeted at youth, and support individuals rather than groups due to varying interests that can affect project sustainability
- Project Review and Design: Ensure project reviews and designs accommodate and seek youth interests.

4.3 Quthing

4.3.1 Basis of livelihoods

Agriculture is the primary livelihood in the mountainous area of Tsatsane, focusing on crops such as maize, sorghum, beans, wheat, rape, spinach, cabbage, tomato, carrots, and potato. Livestock rearing includes sheep, goats, cattle, and horses. Additionally, the community engages in brush control for range management and various income-generating activities such as rosehip harvesting, fruit drying (mangangajane), sale of medicinal herbs (khoara), home brewing (Phephesela), Litolobonya stokvel, and mohair and wool shearing. Infrastructure development is minimal, with no provisions for telecommunications, electricity, road construction, bridges, or potable water for newly established villages.

In Pali, during the consultation period, the community was actively engaged in harvesting and threshing cereals, particularly maize and sorghum. The area is renowned as a major hub for crop production in the district, contributing significantly to grain production. Rearing sheep and donkeys in the Pali catchment significantly contribute to household income. Donkeys are commonly used as a mode of transport, carrying goods such as cereals. Rangelands are managed with a rotational grazing practice known as "leboellla". Household sizes typically range from 4 to 7 members. Notably, fodder growth was observed in fields along the route to and near the village.

In both localities, men, women, and youth reported that they engage in cultivating staple crops such as maize, beans, sorghum, wheat, and tubers like beetroot and carrots. They also manage fruit trees including peaches, apricots, and apples, alongside cultivating vegetables such as rape, spinach, cabbage, tomatoes, and indigenous varieties like sepaile moetse oa pere, leshoabe, and seruoe. They also actively participate in subsistence farming.

Men take leadership roles in agricultural decision-making, guiding the cultivation and management of crops and livestock. They oversee practices like using organic manure and traditional farming tools such as ox-driven hoes and wooden sledges. Livestock rearing, including sheep for wool and mohair, cattle for farming, and donkeys for transport, is also a significant part of their agricultural activities. Livestock ownership is largely controlled by husbands and young males, influenced by cultural norms that view females as minors who are ineligible for owning animals. Women on the other hand said they play crucial roles in household food preparation, managing keyhole gardens and cultivating a variety of crops and vegetables. They use organic manure and traditional tools for farming tasks, contributing to sustainable agricultural practices. Women also participate in poultry farming with chickens and engage in income-generating activities like brewing, rosehip sales, and domestic work to support family livelihoods. Youth reported that both males and females actively participate in agricultural activities, focusing on growing

[219] In the adaptation plans developed under the IACoV CBPP process, very few activities (only those related to environmental management and agriculture) were supported. Others concerning off- farm activities aspired to by youth, men. women were not supported and monitored

commercial crops such as potatoes, carrots, beetroot, and spinach for local markets. They also contribute to subsistence farming of staple crops and indigenous vegetables. Despite challenges such as limited access to agricultural inputs, all youth engage in communal gardening initiatives and both boys and men undertake livestock management tasks like herding, contributing to household food security and economic stability.

Division of labour

During the planting season, men plant while women do the weeding and harvesting. When men plant women herd livestock and during weeding men herd. These include the elderly and the children. however, if men are unable to plant due to illness, women seek assistance from community members. Land in this community is registered under the men, however, some women still do own land. Decisions on what to plant and when are made by both men and women. However, women were influenced in deciding which methods of planting should be used, and their choices were not so welcomed as there was poor harvest. Gathering of fuel wood and fetching water for households are all women's and girls' chores.

In discussions among youth, men, and women, it was highlighted that during the planting season, men typically handle planting tasks while women focus on weeding and harvesting. When men are unable to plant due to illness, women seek assistance from other community members. While land ownership is primarily registered under men's names, some women also own land. Decisions on crop selection and planting methods are jointly made by men and women, although women's contributions to these decisions are sometimes met with resistance, leading to less successful harvests. Women are primarily responsible for gathering fuelwood and fetching water for households, alongside their roles in childcare, cooking, washing, and household upkeep. Boys are commonly hired to care for animals by others or to tend to their own family's livestock.

Decision making

Views from all groups highlight that decisions within the household are usually a joint effort between men and women, with children excluded due to the perception that such matters are too weighty for them to handle. Women often defer to men's decisions, especially regarding employment opportunities. Both genders agree that household decisions should be handled by adults, with children excluded from responsibilities such as meal preparation and decisions about their schooling. Women also expressed frustration at times being treated as minors, limiting their ability to seek employment even when family conditions are not favourable. In terms of agricultural production, decisions on what, when, and how to cultivate are made jointly, although men often maintain greater authority in this domain. Educational decisions are also collaborative, influenced by available resources, particularly financial, which dictate the choice of schools children can attend. Sales of livestock are typically discussed with male children.

4.3.2 Food security and nutrition situation

In both localities a relatively diverse range of food is produced and gathered, including staple crops such as maize, beans, sorghum, wheat; fruit trees including peaches, apricots, and apples; vegetables such as beetroot, carrots, rape, spinach, cabbage, tomatoes, and indigenous varieties like sepaile moetse oa pere, leshoabe, and seruoe. Unpredictable weather and reduced agricultural output due to pests and other climate-related factors have nevertheless resulted in food shortages and insecurity. No further information was gathered from community members on the food security and nutrition situation. However, secondary sources indicate that child stunting, a sign of chronic malnutrition, remains high at 38.8% and 64% of households in Quthing are not able to meet the nutritious diet requirements.[220]

Gender Based Violence and Protection issues

In Pali, women expressed concerns about underage marriage among girls leading to school dropouts, while boys as young as twelve are employed by livestock farmers, with wages often being managed through their parents. Inter-village conflicts over range management and related issues were also reported, highlighting broader community tensions. Due to its nature and emotional impact, gender-based violence (GBV) remains a significant concern in both Tsatsane and Pali communities. In Tsatsane, women sometimes rationalize domestic violence, viewing it as justified, and even report feeling closer to their husbands afterward, despite the emotional and physical toll. The youth noted instances where men are also victims of abuse, particularly when they fail to bring home money after being paid. In Pali, all groups acknowledged the prevalence of GBV, with men admitting to resorting to violence in response to issues such as insults while intoxicated, lack of meals being prepared, or jealousy.

Law/norms enforcement

In Tsatsane, men noted a decline in stock theft incidents following the establishment of community policing forums, attributing the improvement to the active involvement of the chief and local councillors in maintaining law and order. However, women expressed growing concerns about safety in the area. They reported feeling less secure due to recent conflicts and sporadic killings, which have escalated to the extent of house burnings. Despite these incidents, the sources of the violence remain unknown to them. Additionally, the dense growth of forests has heightened youth awareness of gender-based violence (GBV) and the ongoing killings, affecting their sense of safety. Meanwhile, in Pali, men highlighted the presence of community policing personnel across Ha Pali and its sub-villages. These personnel play a crucial role in preventing crimes such as stock theft, stealing grains, and cases of rape, ensuring offenders are apprehended and handed over to the police for further action.

Education

In both Tsatsane and Pali, access to higher education poses significant challenges for children due to limited infrastructure and financial constraints. In Tsatsane, women noted that the absence of nearby high schools and financial limitations prevent children from advancing beyond Standard 7. Although there are two primary schools, the lack of secondary schools nearby hinders further education opportunities. Additionally, there are no Early Childhood Care and Development (ECCD) centers available, further complicating early education access. In Pali, while there are two primary schools available for children starting at age 6, the ECCD centre is not operational due to financial constraints during poor harvest years. High schools are located in Mphaki, a nearby village, but accessibility issues and cultural factors such as early marriages often limit children's education to secondary levels, with only a few progressing to Form C / Grade 10.

Family planning and reproductive health

The perspectives and opinions of the youth regarding family planning practices were not included or gathered during the discussions due to the complexity of discussing sensitive topics like reproductive health with younger participants. However, men reported that women often decide independently to use family planning

[220] Lesotho Fill the Nutrient Gap Report; 2020

methods, especially due to the distance to health centres, leading them to rely on traditional methods. Women expressed reluctance to allow their daughters to use contraceptives, citing the distance to clinics as a barrier to their own use of family planning. Many prefer traditional methods due to distrust in modern contraceptive methods. Men and youth did not provide input on this issue.

Access to services

Information gathered from all groups highlights significant challenges faced by communities in both Tsatsane and Ha Pali areas concerning energy and water sources: In Tsatsane, although water is available, accessibility remains a challenge. While some villages have taps, others rely on fetching water from unprotected sources. Women often travel long distances to fetch water, and during the dry season, they endure long waits for springs to refill. The elderly pay others to fetch water, while lactating mothers receive assistance from visitors. Despite the absence of village policing committees, it is considered safe to fetch water at night. Sanitation facilities are limited, with most community members resorting to open defecation due to the scarcity of toilets. Cooking and heating primarily rely on wood gathered from community woodlots, supplemented by gas and paraffin for cooking and lighting. The absence of electricity remains a significant issue in these villages. In Ha Pali, despite a large river passing nearby, the community lacks access to potable water. Residents must walk approximately 20 minutes upstream to access water sources. Vulnerable groups, such as the elderly, hire youth to fetch water, while newborn mothers receive community support. Accessing potable water poses a significant challenge, with households relying on rivers, streams, and unprotected springs. Women and girls are primarily responsible for fetching water, and some villages lack adequate sanitation facilities, leading people to resort to open defecation. This practice can cause allergies among those with sensitive skin. Energy sources include wood, cow dung, paraffin, and occasionally gas, collected from hills abundant with indigenous shrubs. Women and girls typically gather firewood, while men and boys care for cattle. Despite the challenges, shrub regrowth helps sustain wood resources.

Road infrastructure: Men and women in Tsatsane emphasized the difficulties of accessing their area due to a poorly maintained road, despite its proximity of 40 km, which extends the journey to three hours. Travel becomes even more challenging during the rainy season as the bridges were washed out, making crossing impossible and posing significant risks for pregnant women and children who need to access schools and health services. In some cases, women give birth at home because they cannot reach the clinic, relying on untrained people who lack essential resources like gloves. The health centre, located three hours away on foot, is mainly accessed by women carrying children and the sick, while men occasionally transport children on horseback. In Pali, a tar road connecting to Qacha's Nek district is accessible, with a local road branching off 30 minutes away by car. Constructed using community tools without machinery, this road requires 4x4 vehicles for travel. The youth reported that the community still uses wooden carriers to transport the sick, pregnant women, and deceased, with those able to afford it opting to hire vehicles for transport.

Financial services: Financial services remain a challenge in both Tsatsane and Pali. In Tsatsane, women expressed mixed experiences, with some awaiting financial services and others belonging to societies that provide such services, although access to loans remains limited for some. In Pali, both men and women highlighted the lack of access to loans due to high unemployment rates. However, youth noted the presence of private financial service providers like JP Finance and KK Finance, alongside the availability of services from the Post Bank for employed individuals. At the community level, both Tsatsane and Pali utilize Savings and Internal Lending Communities (SILC) and stokvels, with women in particular forming groups to loan each other money with interest repayment mechanisms in place.

4.3.3 Climatic changes observed, perceived impacts and environmental issues

Climatic changes observed: Annual rainfall is increasingly erratic, often resulting in periodic droughts or prolonged dry spells, and episodes of heavy rainfall; early and late frost; heavy winds; hail; early and late snow and significant snowfall events; unusually high temperatures in January; and hailstorms during January and February of 2023, which had a substantial impact on their livelihoods and agricultural activities.

Men, women, and youth highlighted significant negative impacts on livelihoods and communities:

- Crop Pests and Yield Losses: Increased temperatures and erratic weather patterns have led to the proliferation of pests like cutworms, damaging crops and reducing food production.
- Food Insecurity: Unpredictable weather and reduced agricultural output due to pests and other climate-related factors have resulted in food shortages and insecurity.
- Wildlife Encroachment: Wild animals are moving to lower altitudes in search of food, encroaching on agricultural lands and consuming crops, as their mountain habitats become less sustainable.
- Livestock Mortality and Diseases: Severe weather conditions such as heavy snowfall have increased livestock mortality rates, impacting farmers' livelihoods. Diseases like foot-and-mouth and blue tongue have also affected livestock health and productivity.
- Rising Food Prices: Decreased agricultural productivity and higher production costs due to climate change have caused food prices to rise, worsening food insecurity and straining household budgets.
- Economic and Social Challenges: Farming families reliant on agriculture face economic hardship due to crop damage and increased food prices, affecting their income and ability to provide for their children.
- Health Impacts: High temperatures have led to health issues such as tonsillitis in adults and rash and nosebleeds in children. Access to healthcare is challenging, with women walking long distances to reach the nearest clinic.
- Desertification and soil erosion: Quthing is a hub of desertification and land degradation, and drought. The major environmental challenge here is the deep and long gullies seen in the croplands, especially in the Lowlands and Foothills.

Drought impacts crop and livestock production, water availability and energy production. Due to crop failure, poorer households engage in other income generating activities such as brewing and sale of food items in the villages. Increasing chronic poverty, rising rates of HIV/AIDS and weakened government capacity intensify the vulnerability of poor households to food insecurity. All groups indicated that they face challenges such as climate change impacts, including droughts and heavy rains, which affect crop yields and livestock health. Limited access to agricultural inputs like fertilizers and seeds poses additional challenges, particularly for youth. Agricultural pests and inadequate access to extension services further complicate farming practices, requiring collaborative efforts to address these issues effectively.

Awareness, understanding, and information on climate change

Both groups in Tsatsane and Pali reported that they receive climate and weather information through various channels such as radios, SMS, social media platforms like Facebook, and phone apps. They find the information timely but not always accurate, especially regarding rain predictions by location. Men in Tsatsane reported to prefer visual and auditory methods due to limited literacy. Women on the other hand mentioned reliance on indigenous signs for weather forecasting. The youth

in Tsatsane noted scepticism towards indigenous knowledge systems (IKS) but acknowledged cultural practices during drought to summon rain. In Pali, early warning messages are also received through radio stations like Moafrika and Radio Lesotho, along with social media and phone applications. The youth in Pali expressed distrust in both traditional and modern weather forecasts, often ignoring early warnings. Men gather information through public gatherings and bulk messages from government agencies, disseminating it through word of mouth, influencing their agricultural decisions.

Environmental safeguarding issues

- Erosion and Land Degradation: The steep slopes in rangeland areas contribute to erosion, impacting agricultural productivity. Limited arable land availability intensifies subsistence farming and could lead to overexploitation of available resources.
- Wildlife Encroachment: Wildlife moving to lower altitudes in search of food threatens agricultural lands, exacerbating crop losses and human-wildlife conflicts.
- Infrastructure Challenges: Heavy rains causing road and bridge damage impede transportation and access to markets and services, particularly affecting pregnant women and children seeking healthcare.

Social safeguarding issues

- Water and Energy Challenges: Inadequate access to potable water sources and sanitation facilities, coupled with reliance on traditional energy sources like wood and cow dung, pose health risks and perpetuate gender disparities in water collection.
- Gender-Based Violence (GBV) and Safety Concerns: GBV remains prevalent, exacerbated by socio-economic pressures and alcohol-related conflicts, impacting community cohesion and safety. Limited law enforcement and community policing mechanisms contribute to safety concerns, particularly for vulnerable groups like women fetching water at night.
- Education and Youth Development: Limited access to secondary education due to geographical barriers and cultural factors like early marriages impedes youth development and perpetuates cycles of poverty.
- Financial Access and Support Services: Limited access to financial services and loans restricts economic opportunities, particularly affecting women's ability to invest in livelihood improvements and agricultural productivity.

4.3.4 Support from Government entities and external agencies

Men, women, and youth in both Tsatsane and Pali have received various forms of support and training from different organizations. Government departments such as MEF provided training on proper range management, while MAFSN subsidized fertilizer for agricultural use. The World Food Programme (WFP) and IACoV conducted training sessions on nutrition and provided food packages. In Tsatsane, CRS offered training on business proposals to the youth, alongside health screenings and services including HIV testing and chronic disease treatment administered by the Ministry of Health. The Sebapala project also provided support during the summer cropping season. Women highlighted a one-stop-shop public gathering organized by government departments where offices such as agriculture and food security, Lesotho Mounted Police Services (LMPS), Regeneration of Landscapes and Livelihoods (ROLL), and Forestry were represented. They were capacitated in nutrition-related activities like yogurt production and food preservation through these initiatives.

4.3.5 Support from the IACoV project – perceived benefits and challenges

Feedback from the community highlighted the diverse impacts of support received from IACOV across different groups:

- Youth emphasized trust in WFP due to consistent cash transfers over three years, aiding during food shortages. They appreciated the feedback mechanism allowing them to express gratitude or concerns. Youths also credited IACoV for training in cosmetics production and market linkages, enhancing entrepreneurial skills and aligning production with market demand.
- Women reported receiving non-food items like horticultural seeds and shade nets, improving household food security by reducing reliance on wild vegetables. They also engaged in local cash societies for purchasing groceries and children's fees. Chickens provided a sustainable protein source, and cash transfers empowered them to purchase essential items, enhancing household dignity.
- Men expressed gratitude for IACoV's support in rangeland rehabilitation, including brush control and wetlands restoration. They appreciated non-food items and highlighted the effectiveness of cash transfers in meeting household needs.
- All groups benefited from fruit tree distributions, enabling them to preserve and sell fruits like peaches, bolstering household incomes and nutritional diversity.
- Overall, IACoV's support significantly improved dietary diversity, nutritional status, and economic resilience within the community, though confusion remains between IACoV and WFP regarding their respective roles and impacts.
- In Quthing at least 2,891 households received cash support under the AA for three executive months.

4.3.6 Coping mechanisms and adaptation strategies

The community reported that they employ various coping strategies amidst economic challenges. Women have formed savings groups and reported to have adopted smaller maize meal purchases (12.5kg instead of 50kg) to manage expenses. They seek job opportunities in South Africa for additional income and sell mohair at reduced prices. Children as young as 12 travel to South Africa for domestic work, while youth sell rosehip and castrate animals for income. In contrast, men withdraw boys from school for herding jobs with livestock between ages 8-12, prioritizing immediate economic gain over education. They also marry off girls to reduce household expenses by transferring care responsibilities. Families resort to selling livestock for immediate cash needs, highlighting short-term survival over long-term investments like education. Additionally, all groups cope by purchasing less preferred cereals, particularly maize meal due to high prices, and reducing the number of meals per day. Casual labour, such as selling wood and weeding, is also common for daily survival. They rely on mutual assistance during times of need, reflecting traditional community support in agriculture and livestock production despite challenging conditions. Vulnerable to lean seasons and climate variability, the community relies on maize meal purchases and various income-generating activities like brewing and herding to cope with economic fluctuations. Children, particularly girls, face risks migrating for work due to household economic pressures, exposing them to exploitation and limiting educational opportunities. Community members are deploying the adaptation strategies for which they have received support from the government under the IACoV project. In Pali, many households maintain keyhole gardens.

4.3.7 Adaptation gaps and recommendations for support

Community members across all groups have proposed various initiatives to shape the future development of their area:

- The female youth advocated for water conservation initiatives to support household use and irrigation as they are the ones responsible for fetching water for household use. They also seek training in cottage industries, particularly bread-making facilities as the mobile bakery has never been seen in their area, and male youth mentioned they would appreciate skills in toilet construction and apiary management for honey production. Food preservation and Integrated Pest Management (IPM) training are also priorities. They all highlighted the urgent need for a footbridge to replace the collapsed vehicle bridge in Tsatsane, and large shade nets for the communal gardens.
- Men emphasized the importance of acquiring skills in artificial insemination and improved livestock management. In Tsatsane, they also stressed the necessity of enhancing telecommunication networks for better connectivity with the outside world.
- Women requested follow-up support to assess improvements in their livelihoods and sustain motivation. They recommended the provision of plastic tanks for household irrigation, substantial shade nets for crop protection against weather changes, and securing stable markets for sorghum, a staple crop they produce in significant quantities.
- All groups underscored the need for expanded rangeland management, improved village-to-village road networks, and water harvesting infrastructure to support both domestic needs and agricultural activities.

4.4 Thaba Tseka

4.4.1 Basis of livelihoods

Agriculture is the primary source of livelihood in all four villages for both women and men, especially those aged 36 to 69 years. The elderly (from 70 years and above) rely fully on the pension safety net, with their grandchildren aged 5 to 24 also benefiting from the pensions. Young women above 14 years are mostly married to sustain their living. Due to the land tenure system, less than 10% of male youth own land while female youth do not own land. Fields are narrow and situated on hillsides, limiting production mainly to subsistence use, with occasional selling or bartering for essential needs like education and clothing. Sales typically occur at the farm gate, with no defined market access points. In recent years, vegetable sales became a livelihood source for some youth at Ha Maanela through a donor-funded project that established a communal garden. However, lack of markets and internal conflicts hindered its success.

Communities do not use fertilizers or animal manure due to transportation challenges. Men argue that financial constraints prevent the purchase of hybrid seeds, so they rely on seeds from their own production. Lack of advisory services from the nearby resource centre, Bobete, which is a 1 to 2-hour walk away, also hinders production. Vulnerability, especially among youth and female-headed households, limits access to productive resources. About 70% of young couples (aged 16-35 years) lack access to cropland and rely on sharecropping, which often requires contributions such as seeds or draught animals, which may be beyond their means.

Both men and women participate in crop cultivation, with distinct roles. Men handle heavy labour tasks such as ploughing, tilling, and soil preparation, while both genders engage in seeding, manual weeding, thinning crops, and harvesting. Girls collect firewood, sweep, wash utensils, do the laundry, collect animal dung in the fields, and collect the stalk from the wheat for thatching. They do not go into the fields for production but remain behind to take care of the young children when the adults are in the fields. Boys are mainly herders – from as young as 6 years – and assist with the planting.

Livestock keeping is another prominent livelihood source, with men mostly from 20 to 50 years taking full control. They sell animals and products such as wool, mohair, and animal skins. Animal skins are sold to perform traditional rituals like boys' initiation. This livelihood was reported in both Ha Maanela and Makhuleng to lead to domestic violence due to disagreements over fund prioritization and limited women's involvement in cash usage. Sheep, goats, horses, donkeys, and cattle are commonly kept, with variation in terms of holdings; youth male-headed households are slightly lacking behind. Widowed female households make their own decisions regarding selling of their livestock although they are sometimes bullied by the in-laws or other male family members.

Women predominantly own chickens and have full control over usage including selling of eggs as cheap income source. Local brewing is prevalent among vulnerable households, particularly those headed by females or young couples (20 to 35). This livelihood is crucial for women without land, livestock, or remittances. Men aged 18 to 50 years often engage in casual labour, such as ground preparation and house construction, which occurs infrequently, about once a quarter. Many financial initiatives, like voluntary savings and lending clubs, are led by women. Women's traditional dance groups: 'litolobonya' are popular and incorporate savings and loans initiatives. Village concerts initiated by young women aged 18 to 40 years are common at Makhuleng and used as a strategy to generate funds. However, women reported this as another source of conflict with husbands often accusing women of infidelity. Young women also engage in casual labour – weeding, house smearing, or laundry, especially for elderly households – although opportunities are sporadic, typically once a month, with wages ranging from Maloti 50 to 100 (USD 2.25 to 5.50) per job. Firewood sales have diminished due to restricted shrub regrowth attributed to climate change, with collection sites are now located an average of four hours' walk away. Young men occasionally borrow donkeys to collect and sell firewood. Other livelihood sources for women include firewood sale, beer brewing, domestic work in the village. During summer, the women can sell green peas and indigenous vegetables in town. Examples of the latter are: bobatsi (stinging nettle); leshoabe (dandelion); semetsing (a kind of tuber – Eulophia spp.; theepe (pigweed or red amaranth - Amaranthus spp.), moetse (salsify – Tragopogon porrifolius); papasane (radish), leharasoane (a kind of thistle).

Agricultural casual labour opportunities, such as weeding and soil tilling, depend on good agricultural seasons, with climate variability limiting these opportunities. Men with livestock sell their animals and products like wool, mohair, and animal skins, affecting less than 20% of men. Poor livestock quality and lack of defined market access points hinder sustainable reliance on this livelihood. Remittances are another livelihood source, with women aged 18 to 45 years migrating to urban towns; mostly Maseru and in South Africa for domestic and farm work. Few men seek employment elsewhere, often returning empty-handed without sending remittances. Illegal mining supports around 2 to 5% of young men's households. Sporadically, cash-for-work interventions engage a few able-bodied households (18 to 60 years). People with disabilities lack defined livelihood sources due to barriers and marginalization and are entirely dependent on their family members. Disability is mainly due to old age and accidents not through birth.

4.4.2 Food security, nutrition and access to basic services

Agricultural productivity has been steadily declining since 2016 due to climatic variabilities such as droughts, heat waves, heavy rains, and strong winds. This decline worsened during the 2023/24 dry spells, leaving households with only three months' worth of production (June to August). Vulnerable households: classified as poor and ultra-poor, mostly headed by widowed or single women, often have no harvest at all.

The main crops grown are maize, wheat, and peas, and beans. However, beans are the least prepared food due to their long cooking time and the challenges associated with sourcing firewood. The daily diet mainly consists of papa (a type of stiff maize porridge) and vegetables (especially cabbage) for both adults and

children under five, significantly impacting dietary diversity. Vegetables, primarily grown by women aged 36 to 60 years, are dominated by cabbage due to its perceived resilience to climatic variabilities. During the lean season, women prioritize the limited food available to young children although in some households this results in conflicts with men disagreeing with this prioritization. Older women (above 36 years) believe the rocky terrain, especially at Makhuleng, inhibits vegetable production. Younger women cite lack of water due to drought, heat waves, strong winds, vandalism by livestock, and limited knowledge of climate-smart technologies as barriers. Over 80% of households lack backyard gardens. Younger women (below 35 years) pointed to the absence of climate-smart technologies like shade nets, though some at Makhuleng attribute this to a lack of interest. Customarily, vegetables are grown on farmland rather than at homesteads, making them vulnerable to livestock vandalism. Makhuleng has a nutrition club to advance skills in food and nutrition, climate adaptation, preservation, and cottage industries, but only adult women aged 36 and older participate, along with one young woman. No men are involved.

Livestock rearing is a significant food source, with men controlling and making decisions regarding livestock. A new trend among young men at Makhuleng is raising pigeons and rabbits, influenced by neighbouring villages, which shows potential for success, but is so far adopted by only two men. Most households own chickens, with women fully controlling poultry and using eggs as a primary protein source especially for young children. Some young women believe men needs to be prioritized over children.

Fruit trees: A few households have at least one peach tree because of preference for peaches but yield is poor. Recently due to snow, early frost and strong winds that attack the trees at flowering stage, trees do not bear any fruits. Additionally, drought conditions have led to increased disease and pests affecting the trees. Production of apples is non-existent except for one elderly household at Makhuleng.

Law enforcement is generally fragile. Both Ha Maanela and Makhuleng used to have community policing forums; around 70% men worked closely with the Thaba Tseka police station, but the structure is lately dormant as whistleblowers were targeted and threatened. Theft of poultry is reportedly rife and discourages some women from keeping chickens anymore. All households regardless of sex of the household head are targeted. Perpetrators are unknown but suspected to be within the communities.

Gender and protection issues: Arranged marriages are common, with the women in the community encouraging girls to wed men they might not have met on the grounds of their financial status. Child marriage for girls as young as 12 years is prevalent limiting young girls, who attain only primary education or less. The young engagement into marriage limits their ability to make sound decisions regarding food and nutrition security at household level. Intimate partner violence/domestic violence is an acceptable norm among men of all age groups and considered another threat denying women an opportunity to freely network and embark on profitable food source strategies.

Fuel: There is no electricity in either Ha Setoetoe or Ha Majara, some HHs have small solar panels mainly for charging phones. Firewood, cow dung, cobs, candles, paraffin at Ha Setoetoe however, how some families at Ha Majara use solar lights, battery torch. The source of fuel is frequently Sehalahala (invader shrub), they collect it from a far area and use donkeys to transport it, as well as cow dung. Gas is mostly used at Christmas after getting dividends from SILC and others.

Water supply: Water supply is very bad in Ha Setoetoe related to the lack of sanitation (no toilets) and the unprotected water sources. Ha Majara village has a piped water source from a groundwater source (nine taps) but supply is low in dry periods. Ha Maanela and Makhuleng use a gravity feed system for the supply of domestic water, with communal taps present throughout the area. Water quality is good and no related diseases were mentioned; however, water sources are not protected.

4.4.3 Climatic changes observed, perceived impacts and environmental issues

Climatic changes observed: All villages observed increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, and disruptions to normal snowfall patterns. Ha Setoetoe and Ha Majara residents noted increased summer temperatures and extremely cold winters, and that currently snow can fall anytime of the year including mid-summer (December) – normally, this was between June and July. Drought used to occur in every five years with minimal impact but currently the impact is severe, the period is prolonged, and it can occur in consecutive years.

Shift in seasons: Women and men remarked that the planting seasons has now shifted to around October as opposed to August, placing crops at risk of waterlogging from heavy rains commonly experienced in December or January. Casual labour activities like weeding, largely benefiting vulnerable households headed by women, are often suspended.

Decreased agricultural productivity: Agricultural productivity has decreased by half compared to the last three years, attributed to dry spells, frost, and erratic rainfall. Most fields are small and show clear signs of sheet erosion and topsoil loss, with basalt rocks visible in some areas. Community leaders, including chiefs and councillors in Ha Maanela, have highlighted that soil erosion on farmland is primarily due to unsustainable cropping practices and the expansion of agriculture into sloped areas. In Ha Majara and Ha Setoetoe, considering a 20-year average, there is a high decline in maize production as a staple food due to water scarcity. Crops are attacked by unfamiliar pests. Lack of seeds is an additional significant barrier.

Livestock mortality: There is also a growing concern over livestock mortality due to frequent dry spells, particularly among baby sheep and goats. This strains new breeding efforts and raises the alarm on future livestock productivity. In Ha Setoetoe, high temperatures in 2024 led to cattle dying and sheep having sores and dying.

Water scarcity: Drying of some sources during dry spells forces more than 60% of households to resort to using unprotected water sources. Women and girls in Ha Maanela and Makhuleng frequently travel about 30 minutes to an hour away, to collect water from other sources. Supply is insufficient taking 30 minutes to an hour to fill a 20-litre bucket. Men are reported to rarely engage in this activity. This burden is heavy on people with disabilities and the elderly, who often pay young boys to fetch water for them while people with disability rely on other family members. In Ha Setoetoe, the available source is not reliable especially during dry season; therefore, people walk long distances to collect water. Water is also scarce for agricultural use such as irrigation and animal drinking; however, in Ha Majara, three animal drinking points were constructed by anticipatory action.

Increased burden on unpaid work: The increased time spent at water collection points due to water scarcity impacts women's ability to perform other household duties, including food preparation and proper childcare. Incidence of children burning were reported while mothers were out collecting water.

Increased GBV: Some women further reported incidences of domestic violence with men accusing them of infidelity while waiting for water, although this was not the case in Ha Setoetoe. Men admitted that they beat their wives over lack of food because women spend too much time at the water collection points while leaving households without food.

Gendered division of labour: There is some change to the gendered division of labour as a result of climate changes. For example, men in Ha Majara and Ha Setoetoe are currently more involved in looking after children as opposed to some years back. For water and firewood collection during the dry season, men are charging money in exchange.

Impact on health: The lack of water also affects the timely intake of medication, particularly for individuals on antiretroviral drugs, tuberculosis treatment, and other chronic illnesses such as diabetes and hypertension. Women said this is a significant concern, as these individuals must drink plenty of water as part of their treatment. Village health workers strongly emphasized that despite good adherence to medication, insufficient water intake results in patients appearing fragile and dehydrated and experiencing delayed recovery.

Increased child illnesses: Use of unprotected water sources was reported to increase illnesses with reported cases of frequent diarrhoea among children under five years. High temperatures in 2024 led to diarrhoea and vomiting in children. In Ha Setoetoe, the clinic is 2-3 hours walk on foot; it is the responsibility of women to take children to clinics.

Impact on WASH: Women attested that water limitations compromise personal hygiene and households, e.g. utensils are partially cleaned. Smearing of houses with mud and cow dung for reinforcement of interior and exterior walls depends on water availability and is hardly done during water crisis, affecting young women's livelihoods as they rely on it for additional income.

Degraded rangelands: Rangelands are barren due to overgrazing. Eventually soil erosion, loss of vegetation, and reduced land productivity are evident. Wetlands play a crucial role in maintaining water capacity yet are degraded by livestock.

Lack of firewood: While most areas in Thaba Tseka are strongly affected by invasive species (Sehalahala, Chrisomocoma tenefolia), Ha Maanela and Makhuleng areas are free of it. While environmentally beneficial, women perceive this as a crisis given the lack of forest trees in the area. Natural shrubs are extinct because of dry spells, which forces women and girls to travel an average of 3 hours to firewood collection sites. However, none of these groups reported experiencing any protection challenges.

Indigenous vegetables and medicinal plants extinction: indigenous vegetables like theepe (pigweed or red amaranth) are now only available during the rainy seasons while some other indigenous vegetables like 'sepaile sa sesotho', qheela' were reported to have become extinct. Some medicinal plants that cure certain livestock and human illnesses are now locally extinct. Consumption of indigenous vegetables like moetsi/salsify and stinging nettle/bobatsi has nearly ceased in recent years due to drought, having a significant impact in Ha Majara as they rely on them on a daily basis. Women need to gather these further away, behind the mountains, which may take the entire day; children are left with their older siblings or elderly people.

For Ha Majara and Ha Setoetoe, a summary of the impacts was provided as follows: beer brewing has declined because of reduced production of maize as a major ingredient and related to increased costs for firewood due to growing scarcity. Due to land degradation, firewood sales have declined. Production and quality of wool and mohair has also gone down since animals are not feeding well, and there is loss of livestock from unknown diseases. Food insecurity and malnutrition have increased. Elderly groups, pregnant women and invalids are the most affected people due to distance travelled in search of water and firewood.

Awareness, understanding, and information on climate change

Although all groups of villagers can describe changing weather trends, there is limited understanding of the causes of climatic changes. For example, while the young women's group in Ha Majara attributed the observed changes to climate change, they were less sure what caused this. Some said that God was angry as they had not obeyed traditional roles, or because of inter-marital affairs. In the four villages, early warning and weather information are primarily received through local radio stations, particularly MoAfrica FM and sometimes Radio Lesotho. Many people do not have radios. Herders can connect to these radio stations through mobile phones, allowing them to stay informed. Not all community members have cellular phones, and many do not have smart phones; in Ha Setoetoe a significant challenge is charging phones, even if the cellular signal is present. The received information helps the community take precautions and better adapt to predicted weather shocks. Youth – male and female – access weather information from their smart phones. There are mixed opinions regarding indigenous knowledge, with female youth and adult women sceptical about its reliability, while it plays a vital role for some people especially elderly people. In Ha Majara, young men receive climate change messages through MoAfrika radio and their community station, which they trust, but don't read messages sent through cell phones because they do not trust the source. The indigenous knowledge system mainly concerns rainfall forecasting, which they do not believe. Young women stated that no information is received from their children on climate change.

4.4.4 Support from Government entities and external agencies

In Ha Maanela and Makhuleng, significant support from government entities came primarily from the Ministry of Health, specifically the Bobete Health Centre, which is also supported by Partners in Health. In an attempt to address teenage pregnancy, the facility once deployed social workers and nurses to Makhuleng to educate teenagers about Comprehensive Sexuality Education; however, parents and grandparents restricted their attendance. Some women said they feel more comfortable when teenage girls marry young rather than becoming pregnant outside of marriage. This situation was similar in all four villages. Male uptake family planning is reportedly low in all four villages. While men dictate health-related decisions, particularly contraceptive issues, young women have developed strategies to manage this by keeping two health booklets, one hidden from their spouses, for contraceptive records.

Both Ha Setoetoe and Ha Majara are located far from the agricultural resource centre, Health Services etc. The Ministry of Health does provide a monthly health services. Other service providers are rural water supply, Ministry of Education, WFP through ECCD feeding at Ha Majara. Nutrition clubs are to some extent present – but in Ha Majara, they are absent but women know of them. Ministry of Agriculture support through Bobete resource centre is reported inadequate with livestock farmers sometimes forced to seek assistance in Mapholaneng resource centre (in Mokhotlong district); five hours on a horse back while some drive to Thaba Tseka; a three hours' drive. In Ha Setoetoe, extension officers from the Resource Centre came to the village only once in 10 years. Maanela village benefited from an irrigation project supported by Catholic Relief services (CRS) to enhance massive vegetable production through communal gardens, to promote commercial agriculture in households, especially youth-led (men and women). The project failed due to communal conflicts and because the provided pipes were vandalized/stolen by small boys.

Financial services: Ha Setoetoe and most villages have Savings and Internal Lending Communities (SILC) groups. Ha Majara and Ha Setoetoe do not have any access to formal financial services providers in the villages, but they have established micro lending schemes to access loans and to save (mostly woman). Voluntary savings clubs are not present in Ha Majara but the young women know about this from other villages. There are some similar groups like 'litolobonya group'– a traditional dance played by women that promotes solidarity – which could be converted.

4.4.5 Support from the IACoV project – perceived benefits and challenges

The anticipatory action (AA) interventions conducted through DMA with IACOV support are largely applauded in Ha Maanela and Makhuleng. Animal drinking points were constructed that are also used by women to do laundry, reducing the burden to travel long distances to reach streams. Farms located near the drinking points can now use this water for vegetable irrigation. However, in Ha Majara, women noted that earth dams constructed under the AA did not meet objectives: two of the five dams have sufficient water while others have already silted up and/or been damaged by livestock. Communities used to grow cabbage only but learned that

carrots, spinach, beetroot, etc., can still grow under protection although pest attacks and drought were major challenges. During delivery of the AA intervention, GBV sensitization was led by the Ministry of Police – Child and Gender Protection Unit. This was done for the first time in in Ha Maanela and Makhuleng. Women highlighted a reduction in domestic violence although men complained that women have been given more rights, and when men attempt to enforce traditional norms (defined as beating), women report to the police. This often results in police taking severe actions against them.

4.4.6 Coping mechanisms and adaptation strategies

In Ha Maanela and Makhuleng, little was shared regarding coping mechanisms or workable adaptation strategies. Both men and women continued to reflect on how climate change is bringing more deprivation to their areas:

- The lean season is experienced earlier and prolonged from September until March. As a coping strategy, women usually reduce meal frequencies from three to two or sometimes once per day.
- Other coping strategies include women from 22 years to 50 engaging in transactional sex or relationships, often targeting elderly men who receive pensions. Women reflected that these relationships ensure food availability during times of crisis.
- Additionally, animals are increasingly sold to meet essential needs and procure food especially around the festive season (staring November).
- Diversion furrows are constructed above fields and near buildings to reduce pressure of runoff.

In Ha Majara and Ha Setoetoe, coping strategies included people wearing sun hats made of grass for increased average heat, and herders resting in caves for shade during the day. Diversion furrows are constructed during heavy rainfall, and advance collection of firewood for snow periods. In Ha Setoetoe there are few to no climate adaptive mechanisms employed: no CSA plots were observed, and only one keyhole garden that was not properly constructed and was not producing. There are not many fruit trees, and where they exist, mainly peaches, the buds do not turn into fruit.

4.4.7 Adaptation gaps and recommendations for support

- Social and behavioural change communication programmes are needed to change mindsets for the adoption of transformative approaches and sustainable programmes, as past initiatives failed to yield sustainable rewards. Some villages have a history of frequent quarrels, and a strategy is needed to holistically engage and transform mindsets. Comprehensive knowledge about climate change was identified as a gap across all age groups and suggestion to target different platforms; although community gathering was preferred.
- Social protection interventions such as fato-fato – all groups
- Livelihood diversification and income generating activities e.g. Supply of apple trees to diversity livelihoods for women and men; capacity strengthening on food preservation, cottage industries and handicrafts – women and men, young and old; poultry to increase income though egg selling – but theft of chickens must be overcome, women suggested construction of chicken houses/coops that can be locked as a safeguard. Women in Ha Setoetoe mentioned that it is costly to travel to town as they have to pay M160.00 a return trip, livelihood diversification would be a real life changer.
- Financial services: Men in Ha Setoetoe and Ha Majara suggested micro lending schemes for acquiring the funds / start-up costs for income generating projects
- Market access: Agricultural inputs and linking communities to reliable markets for increased income
- Capacity strengthening on livestock and crop production: there are deep concerns about livestock and a willingness to adopt sustainable natural resource management strategies, including tree planting, upscaling fodder production for animal feeds to relieve the degraded rangelands and provide an optional livelihood source. There is an expressed willingness to learn skills in fruit tree production.
- Capacity building of government counterparts especially those based in the communities such as agricultural extension officers for continued community support
- Water harvesting and management and maintenance of water infrastructure; Women feel more burdened with far water collection points or long waiting times and suggested stronger sensitisation and creation of community saving club to timely maintain water structures. Sensitisation will ensure proper care of the water infrastructure; also establishing new supply points. Water harvesting techniques.
- Comprehensive sexuality and GBV sensitisation and education to enhance adolescent skills and knowledge on issues around teenage pregnancy needed and young women see it as a key priority; targeting key group; young boys, herders; young men who are predominantly GBV perpetrators and including marrying young girls
- Energy saving technologies: No adaption measures related to energy saving technologies was suggested however given the seriousness of lack of fuel, it is one of the needed supports in ensuring cooking of nutritious food like beans. The technologies would also be a desirable adaptation measures to conserve the environment from further extinction of its natural resources.
- Upscaling production of short cycle animals as a livelihood option and source of protein for benefit of entire household especially nutritionally vulnerable groups like children, breastfeeding and pregnant women, and chronically ill people including those on ART treatment to facilitate treatment uptake and accelerate recovery.
- Climate services: Mobile network coverage is optimum and serves as an advantage to maximise mass media in delivering climate services information.
- Demand creation for nutrition services such as the nutrition clubs is needed in ensuring all genders and age groups take a proactive engagement. WASH training and infrastructure is highly needed in Ha Setoetoe.
- Strengthen collaborations with other entities such as Partners in Health (PIH) for an integrated programming and strengthen existing community-outreach programmes.

<u>Specific recommendations regarding youth engagement</u>

- Girls and young women in Ha Setoetoe would like (subsidised) vocational training at the new institution in town. Inputs for crops are needed, as the elevation reduces crops growth.
- In Ha Majara, the young women's group mentioned: fato-fato or FFA-type support; water harvesting; project to produce eggs; communal gardens and market linkages so they can sell in town; support for cottage industries – those with skills are ready to teach other how to make brooms, they need the materials to make frets to bind the grass sheaves. Other skills include crochet (beanies, etc.), cookery and baking, shoemaking and repair by their husbands. The group

expressed a willingness for training and requested that government and NGOs invest in sensitisation, particularly for youth groups in each village. VDMTs are dormant and could be re-energised.

- Young men in Ha Majara said they would appreciate support through the rearing of small stock so they could attract the market in town, they are willing to do road maintenance to attract the buyers at that time. Subsidy in horticultural seeds, afforestation through woodlots for fuel wood and fruit trees, training on food preservation.

5. Key findings and recommendations

5.1 Key findings

The community consultations reinforce the secondary sources of information that the situation in the rural areas of the targeted districts is one of high levels of poverty, unemployment, lack of access to services such as electricity, sanitation and reliable sources of clean water for household use, as well as water for productive use. In all districts, agriculture is the primary source of livelihood for both women and men, with livestock a significant contributor. Additional income-generating activities include rosehip harvesting, fruit drying (mangangajane), sale of medicinal herbs (khoara), home brewing (Phephesela), Litolobonya stokvel, and mohair and wool shearing. In large parts of the districts, infrastructure development is minimal, with no provisions for telecommunications, electricity, road construction, bridges, or potable water for some existing or newly established villages. There is significant land degradation and soil erosion in the three southern districts, which reduces the viability of livelihoods. In Thaba Tseka, while there is considerable evidence of overstocking with resultant degradation of the rangelands, there is in general a lower incidence of gully formation. The dominant agricultural practices are subsistence and monoculture with conventional tillage, which depletes the soil, and causes further erosion, resulting in the destruction of biodiversity in the long run. The situation across the districts is one of declining agricultural and livestock productivity, with resultant severe impacts on rural livelihoods of women, men, female and male youth. Firewood and other sources of fuel are depleted, increasing the burden largely for women and girls who have the responsibility for gathering this.

Climatic changes and their impacts

Across the villages, a range of climatic changes has been observed, namely increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, disruptions to normal snowfall patterns, increased summer temperatures and extremely cold winters. While drought used to occur once in every five years with minimal impact, currently the impact is severe, the period is prolonged, and it can occur in consecutive years.

Community members highlighted significant challenges to their lives and livelihoods as a result of these climatic changes:

Shift in cropping seasons: Traditionally, rains would begin in August, allowing for land preparation. Currently, planting starts in December due to rains that begin in November-December. Only sorghum, due to its drought-tolerant nature, could be planted in October. Prolonged winter conditions extending into September also contributed to delayed planting. Late onset rains often come as heavy and flash rains that wash away seeds and crops at early stages of germination; farmers often cannot afford the expenses of re-seeding. These changes impinge on all groups, as they fundamentally affect agricultural production and food security. Casual labour activities like weeding, largely benefiting vulnerable households headed by women, are often suspended.

Reduced agricultural productivity and increased food insecurity: Recurrent extreme high temperatures, dry spells, and erratic and heavy rains have reduced production over the years, leaving many fields eroded and bare. During heavy rains, fields were often washed away. Many households in two localities in Mohale's Hoek were no longer engaging in agriculture, with only 4 out of 10 households in the lowlands still participating; however, this was not the case throughout the localities – for example, in Thaba Tseka, almost all households still engage in agriculture and livestock production. Unpredictable weather and reduced agricultural output due to pests and other climate-related factors have resulted in food shortages and insecurity. Decreased agricultural productivity and higher production costs due to climate change have caused food prices to rise, worsening food insecurity and straining household budgets.

New and increased pests and diseases: Participants noted emergence of animal and crop diseases and pests in warmer and hotter months that are now difficult to manage and treat using conventional methods that used to work for them. This includes fruit trees and vegetables. The proliferation of pests like cutworms is damaging crops and reducing food production.

Water scarcity: Women in particular noted reduced access to clean water for domestic chores and irrigation water for their homestead gardening, as a result of water sources drying up. This particularly adversely affects women, girls, children, disabled and the elderly who in times of drought travel long distances to fetch water. Men are reported to rarely engage in this activity. This burden is heavy on people with disabilities and the elderly, who often pay young boys to fetch water for them while people with disability rely on other family members. A further potential cause for water scarcity is the planting of exotic forest trees (eucalyptus and poplar) – this was noted by community members in Ha Thakanyane, Mafeteng, who observed that ever since planting of these trees on the hills where water sources are located, most sources dried up. There was lack of water for animals, especially in the lowlands.

Compromised WASH and child care practices: Increased load and long waiting times for fetching water have compromised proper WASH practices, with drinking water often affected, as some of the water sources that were closer have dried up (Lithakaling). Proper caring practices and young child feeding is compromised when women leave children behind for an average of 1 to 2 hours to collect water. However, no incidences of domestic violence or any GBV acts connected to this challenge was reported.

Lack of firewood and collection challenges: Community members – especially women and girls – are forced to collect firewood from remote uphill areas that are difficult to access for the elderly, people with disabilities and heavily pregnant women. There is depletion of rich shrubs and animal excreta 'lisu' used in past as firewood. An invasive species is commonly used for firewood (Sehalahala, Chrysocoma tenefolia). Natural shrubs are extinct because of dry spells, which forces women and girls to travel up to three hours to firewood collection sites.

Indigenous vegetables and medicinal plants extinction: indigenous vegetables like theepe (pigweed or red amaranth) are now only available during the rainy seasons while some other indigenous vegetables like 'sepaile sa sesotho', qheela' were reported to have become extinct. Some medicinal plants that cure certain livestock and human illnesses are now locally extinct. Consumption of indigenous vegetables like moetsi/salsify and stinging nettle/bobatsi has nearly ceased in recent years due to drought, having a significant impact in Ha Majara as they rely on them on a daily basis. Women need to gather these further away, behind the mountains, which may take the entire day; children are left with their older siblings or elderly people.

Rangeland degradation and livestock decline: Rangelands in the foothills were encroached by invading species, while rangelands in the lowlands were highly degraded with dry coastal barren land. Declining grazing lands brings about conflicts within villages because most households rely on rangelands for animal feeding. Wetlands play a crucial role in maintaining water capacity yet are degraded by livestock. Animals in both zones in Mohale's Hoek, as well as in Thaba Tseka, were stated to be in poor body condition. Conditions have led to diseases in animals; for instance, in February-March 2024, sheep in the lowlands were affected by blue

tongue. Over the years, these conditions have resulted in animal deaths and a reduced number of livestock per household. In some areas, wild animals are moving to lower altitudes in search of food, encroaching on agricultural lands and consuming crops, as their mountain habitats become less sustainable.

Health impacts: The groups observed a surge in water-borne diseases among people and animals. Flu and cold strains were also mentioned as being common lately in summer months which is abnormal as those are usually winter illnesses. Skin problems especially in young children were also reported as becoming a problem in summer which the group attributed to hot and dry conditions. Use of unprotected water sources was reported to increase illnesses with reported cases of frequent diarrhoea among children under five years. Child illnesses significantly add to the burden of women – for example, in Ha Setoetoe, Thaba Tseka district, the clinic is 2-3 hours walk on foot; it is the responsibility of women to take children to clinics.

Damage to houses and infrastructure from strong winds and dust storms, including solar panels used for pumping and distributing water in Majapereng (lowland), which were destroyed. Water sources, especially in the lowlands, have dried up, forcing households to travel long hours (3-5 hours) to obtain water from unprotected sources.

Soil erosion and poor soil absorptive capacity resulting from drought and torrential rains, contributing to desertification in many parts of the district. Soil erosion on farmland is primarily due to unsustainable cropping practices and the expansion of agriculture into sloped areas.

Some of the environmental problems were caused by poor land use and a lack of expertise within the communities. For example, efforts were made in the past to remove Sehalahala (Wild Aster), which seemed to be the main invader, but due to a lack of expertise on how to control and manage it, it keeps coming back. The extinction of some species, such as Khaka (helmeted guinea fowl), occurred because communities were killing and eating them.

Disruption to traditional communal practices: The youth in the Lithakaling FGD noted that extreme food insecurity has increased selfishness and disrupted traditional practices of communal sharing, such as sharecropping and 'matsema'. Letsema (plural matsema), is a practice where communities work collectively and share food. This has affected poor individuals mostly, widowed women, and young couples without land.

Widening economic disparities: Climatic fluctuations have widened the gap between poor and wealthy households. Wealthier households cope better with climatic variability due to diverse and reliable livelihoods such as formal employment.

Vulnerable populations most affected: People with disabilities, pregnant and breastfeeding women, the elderly, are more affected by climatic fluctuations due to their physiological status. Youth are mostly affected because of high unemployment rates and entrenched poverty. Livestock owners are also significantly impacted due to deteriorating rangelands.

Findings on food and nutrition

Most areas have a daily diet that is not particularly diverse, although this has increased substantially where IACoV interventions have been well implemented. Where nutrition clubs are present, these are perceived in a positive light. In Thaba Tseka, the daily diet is particularly poor and mainly consists of papa (a type of stiff maize porridge) and vegetables (especially cabbage) for both adults and children under five, significantly impacting dietary diversity. Vegetables, primarily grown by women aged 36 to 60 years, are dominated by cabbage due to its perceived resilience to climatic variabilities. During the lean season, women prioritize the limited food available to young children although in some households this results in conflicts with men disagreeing with this prioritization. While beans are grown in all the districts, they are the least prepared food due to their long cooking time and the challenges associated with sourcing firewood.

Gender- and protection-related findings

These centred around GBV and how climate change had affected this, gendered division of labour, women and youth participation and access to resources, and issues concerning people with disabilities and elderly people. The food insecurity situation in the communities often leads to adult negligence, teenage pregnancy, underage sex-work and rape; which were raised as concerns in both communities. Parents leave young children on their own either because parents have gone out to fend for the household or have gone to the bars/ taverns. This habit exposes children to sexual predators and use of drugs and alcohol at young age. Some of these children end up trading in sex to feed themselves and their siblings as there are no parents to take care of them. The communities mentioned that most rape cases go unreported due to stigma and because some parents resort to take monetary compensation from the perpetrators. The men indicated that some parents especially women arrange for older men to engage in sexual activities with their young daughters in return for payment and this has made young girls to take rape as a norm or a kind of initiation they must go through. Arranged marriages are common, with the women in the community encouraging girls to wed men they might not have met on the grounds of their financial status. Child marriage for girls as young as 12 years is prevalent limiting young girls, who attain only primary education or less. The young engagement into marriage limits their ability to make sound decisions regarding food and nutrition security at household level. Intimate partner violence/domestic violence is an acceptable norm among men of all age groups and considered another threat denying women an opportunity to freely network and embark on profitable food source strategies.

Due to its nature and emotional impact, gender-based violence (GBV) remains a significant concern in most communities. Women sometimes rationalize domestic violence, viewing it as justified, and even report feeling closer to their husbands afterward, despite the emotional and physical toll. The youth noted instances where men are also victims of abuse, particularly when they fail to bring home money after being paid. In general, all groups acknowledged the prevalence of GBV, with men admitting to resorting to violence in response to issues such as insults while intoxicated, lack of meals being prepared, or jealousy. However, there were instances where men in a village admitted to the presence of GBV while the women did not, indicating the sensitivity of this issue and need for further sensitisation on it. Movement of women and girls is not free as a result of the prevalence of rape which unfortunately is seldom reported. Children, particularly girls, face risks migrating for work due to household economic pressures, exposing them to exploitation and limiting educational opportunities. Boys are widely exposed to child labour as they are usually hired as herders and for other casual jobs to provide for their families. They may also be exposed to abuse of drugs and alcohol as well as. Gangsterism was also reported to be on the rise in some communities, affecting boys and men.

Gendered division of labour: There is some change to the gendered division of labour as a result of climate changes. For example, men in Ha Majara and Ha Setoetoe are currently more involved in looking after children as opposed to some years back. For water and firewood collection during the dry season, men are charging money in exchange.

Youth-related findings: Although youth across the localities where IACoV had been implemented indicated that they had benefited, from resilience activities as well as the AA response, in several cases youth mentioned that they were not afforded adequate participation in project activities by their elders, and/or were not that interested in communal activities. Given the serious levels of unemployment of female and male youth, this points to the need for a specific package of activities to be developed for youth that includes individual / entrepreneurial opportunities.

Interlinkage and knock-on effects of climatic changes: The findings indicate the interlinkage and knock-on effects of climatic changes experienced by the rural communities. Thus, the increasingly erratic rainfall and more frequent drought and dry spells result in poor agricultural productivity and frequent crop failure; this low

food production leads to poor nutritional status of children which affects school performance and attendance, which in turn affect growth of the economy. The poor rainfall performance and recurring dry spells affect livestock and herding jobs, while bringing problems of livestock diseases and pests that decrease livestock productivity. At the same time, the recurring climate shocks are intensifying land degradation and reducing arable land while increasing vulnerability to climate induced hazards. The poor rains and dry spells also affect nutritional status of children and therefore also their development and academic performance. The presence of climate smart agriculture and water harvesting techniques in some localities, largely related to the support of the IACoV project, indicate a positive drive towards ensuring sustainable vegetable and backyard crop production that contributes to diversified diet.

Awareness, understanding, and information on climate change

Although all groups of villagers can describe changing weather trends, there is limited understanding of the causes of climatic changes. For example, while the young women's group in Ha Majara attributed the observed changes to climate change, they were less sure what caused this. Some said that God was angry as they had not obeyed traditional roles, or because of inter-marital affairs. Villagers receive climate and weather information through various channels such as radios, SMS – this is an IACoV-supported activity, social media platforms like Facebook, and phone apps. They find the information timely but not always accurate, especially regarding rain predictions by location. Men reported to prefer visual and auditory methods due to limited literacy. There are mixed opinions regarding indigenous knowledge, with youth in general and adult women sceptical about its reliability, while it plays a vital role for some people especially elderly people.

Early warning messages are received through radio stations like Moafrika and Radio Lesotho, along with social media and phone applications. Many people do not have radios. Herders can connect to these radio stations through mobile phones, allowing them to stay informed. In some cases youth expressed distrust in both traditional and modern weather forecasts, often ignoring early warnings. Men gather information through public gatherings and bulk messages from government agencies, disseminating it through word of mouth, influencing their agricultural decisions. Not all community members have cellular phones, and many do not have smart phones; a significant challenge is the cost of charging phones, even if the cellular signal is present. The received information helps the community take precautions and better adapt to predicted weather shocks. In Ha Majara, young men receive climate change messages through MoAfrika radio and their community station, which they trust, but don't read messages sent through cell phones because they do not trust the source. Young women stated that no information is received from their children on climate change.

Support from the IACoV project – perceived benefits and challenges

Feedback across the groups in the three southern districts highlighted the diverse impacts of support received from IACOV. Youth emphasized trust in WFP due to consistent cash transfers over three years, aiding during food shortages. They appreciated the feedback mechanism allowing them to express gratitude or concerns. Youths also credited IACoV for training in cosmetics production and market linkages, enhancing entrepreneurial skills and aligning production with market demand. However, in some areas, youth felt they had not been sufficiently targeted and included in the project's benefits. Women reported receiving non-food items like horticultural seeds and shade nets, improving household food security by reducing reliance on wild vegetables. They also engaged in local cash societies for purchasing groceries and children's fees. Chickens provided a sustainable protein source, and cash transfers empowered them to purchase essential items, enhancing household dignity. Men expressed gratitude for IACoV's support in rangeland rehabilitation, including brush control and wetlands restoration. Communities noted that conservation measures such as stone lines and gully structures seemed to support the recovery of vegetation and land. They appreciated non-food items and highlighted the effectiveness of cash transfers in meeting household needs. All groups benefited from fruit tree distributions, enabling them to preserve and sell fruits like peaches, bolstering household incomes and nutritional diversity.

Overall, IACoV's support significantly improved dietary diversity, nutritional status, and economic resilience within the communities, though confusion remains between IACoV and WFP regarding their respective roles and impacts. However, resilience measures have not been successful in all areas. For example, in Majapereng and Mok'hopha in the foothills, gullies were not recovering due to a lack of technical expertise. Keyhole gardens provided vegetables, though during extreme high temperatures, the vegetables dried up despite the use of shade nets. Chickens provided eggs, but many died in the lowlands. The extension workers' follow-up on activities and monitoring is weak. According to the communities, this lack of follow-up was why many chickens died, as they did not know how to manage diseases. Technical support for conservation measures was also limited, which hindered vegetation recovery in some areas. Community members also noted support from the GoL IACoV-supported Anticipatory Action Plan to mitigate drought in Mafeteng, Mohale's Hoek, Quthing, and Thaba-Tseka during the December 2023 and December 2023 – February 2024 seasons, which included early warning systems, cash transfers, vegetable seeds, and water source development. This is not sufficiently scaled up – for example, in Quthing around 2,891 households received cash support under the AA for three consecutive months, but community members noted the need is greater.

Coping mechanisms and adaptation strategies

Various coping strategies are employed amidst economic challenges. Women have formed savings groups and reported to have adopted smaller maize meal purchases (12.5kg instead of 50kg) to manage expenses. They seek job opportunities in South Africa for additional income and sell mohair at reduced prices. Children as young as 12 travel to South Africa for domestic work, while youth sell rosehip and castrate animals for income. In contrast, men withdraw boys from school for herding jobs with livestock between ages 8-12, prioritizing immediate economic gain over education. They also marry off girls to reduce household expenses by transferring care responsibilities. Families resort to selling livestock for immediate cash needs, highlighting short-term survival over long-term investments like education. All groups cope by purchasing less preferred cereals, particularly maize meal due to high prices, and reducing the number of meals per day. Casual labour, such as selling wood and weeding, is also common for daily survival. They rely on mutual assistance during times of need, reflecting traditional community support in agriculture and livestock production despite challenging conditions. Community members are deploying the adaptation strategies for which they have received support from the government under the IACoV project, as mentioned above. In some cases, like Lithakaling, this includes an integrated range of interventions, including a sand dam, vegetable production in greenhouses, an orchard, solar dryer, poultry, pigs, food processing. Many households maintain keyhole gardens.

In Thaba Tseka, where IACoV phase I has not been implemented, little was shared regarding coping mechanisms or not many workable adaptation strategies were observed. Coping strategies included people wearing sun hats made of grass for increased average heat, and herders resting in caves for shade during the day. Diversion furrows are constructed during heavy rainfall, and advance collection of firewood for snow periods. In Ha Setoetoe in particular there are few to no climate adaptive mechanisms employed: no CSA plots were observed, and only one keyhole garden that was not properly constructed and was not producing.

5.2 Recommendations

Climate adaptation gaps raised by all groups of community members in the consultations related to insufficient knowledge of and support for climate resilient technologies to address low levels of agricultural production and livestock diseases; inadequate extension services, insufficient nutrition knowledge; climate

information that was not always locally reliable; and older men and women mentioned the lack of propagation of indigenous knowledge related to early warning for climatic hazards.

The following recommendations are made, based on the findings of the community consultations, suggestions, to enhance agricultural productivity, economic resilience, and community well-being, addressing immediate needs while fostering sustainable development in the long term.

- Land and wetland rehabilitation: Increase support for more rehabilitation of land through cash-based transfers. Mainstream climate risk considerations into the land rehabilitation activities, as the construction and durability of most of the activities are adversely affected by heavy rains and strong winds. Integrate approaches to land rehabilitation, such as soil conservation skills, donga rehabilitation, brush control, building of stone lines, practicing rotational grazing, with conservation agriculture.
- Fire control management: Capacitate community members on fire management strategies and activities such as fire belts aimed at preventing wildfires, controlling their spread when they occur, and using prescribed burns to achieve ecological and land management (including rangeland protection) goals.
- Climate services and early warning system should be strengthened e.g. by capacitating village disaster management teams, such that climate services information can be accessed by all so that communities are able to adopt recommended practices. There are cultural groups and nutrition clubs that could be harnessed for this. The project should also maximise the use of media like radios and bulk sms to disseminate climate services information and develop regular climate services tailored to specific areas and audiences, with stronger collaboration with community leaders and local influencers to amplify the message.
- Climate-smart techniques should be strengthened coupled with improved agriculture techniques, such as use of drought-tolerant seeds, short variety seeds, water harvesting techniques, climate smart agriculture. This should be accompanied with associate training and provision of non-food items where necessary. Training on climate smart agricultural techniques for extension services and community members must be scaled up. Integrated Pest Management (IPM) training is a priority, as well as afforestation through woodlots for fuel wood and fruit trees.
- Backyard gardening: Strengthening and ensuring sustainability of backyard gardening to support general crop and vegetable production.
- Innovative water harvesting techniques, irrigation, and management and maintenance of water infrastructure: This is needed for both vegetable and crop production, and to benefit livestock and rangelands. This should build on the experience with sand dams. Female youth specifically advocated for water conservation initiatives to support household use. Women feel more burdened with far water collection points or long waiting times and suggested stronger sensitisation and creation of community saving club to timely maintain water structures. Sensitisation will ensure proper care of the water infrastructure; also establishing new supply points.
- Comprehensive sexuality and GBV sensitisation and education to enhance adolescent skills and knowledge on issues around teenage pregnancy needed and young women see it as a key priority; targeting key group; young boys, herders; young men who are predominantly GBV perpetrators and including marrying young girls
- Energy saving technologies: No adaption measures related to energy saving technologies was suggested however given the seriousness of lack of fuel, it is one of the needed supports in ensuring cooking of nutritious food like beans. The technologies would also be a desirable adaptation measures to conserve the environment from further extinction of its natural resources.
- Upscaling production of short cycle animals as a livelihood option and source of protein for benefit of entire household especially nutritionally vulnerable groups like children, breastfeeding and pregnant women, and chronically ill people including those on ART treatment to facilitate treatment uptake and accelerate recovery. Young men requested support for rearing of small stock so they could attract the market in town, they are willing to do road maintenance to attract the buyers at that time.
- Document indigenous knowledge and share this through various channels as it enables communities to relate well to changing climatic conditions compared to how things were in the past.
- Strengthened collaboration between stakeholders needed to tackle various aspects of impacts of climate change in unison, as this will help tackle the persistent issue of resource constraint through pooling of resources; for example, with Partners in Health (PIH) and other NGOs present on the ground for an integrated programming and strengthen existing community-outreach programmes.
- Demand creation for nutrition services such as the nutrition clubs is needed in ensuring all genders and age groups take a proactive engagement. WASH training and infrastructure is highly needed in Ha Setoetoe.
- Youth engagement: include a youth target and develop a specific package of activities for youth that includes individual / entrepreneurial opportunities. Male and female youth recommended more support for off-farm income generating activities that include art crafting, car washing, and carpentry. Allocate a specified percentage of committee positions to youth for effective engagement and participation. Support individuals rather than groups due to varying interests that can affect project sustainability. Male youth mentioned they would appreciate skills in toilet construction and apiary management for honey production.
- Local adaptation plans: Communities should use local adaptation plans, with clear roles and responsibilities and monitoring framework.221 Capacity assessment of local communities needs to be done, to determine their capacity to implement the plans and devise appropriate capacity interventions. Extension workers and other Government staff need to be capacitated and strong partnerships formed to support local adaptation plans.
- More attention to IGAs: Include more attention to IGAs to target different groups. Include support to food processing and preservation, train women in construction of wonder boxes, homegrown energy efficient stoves, etc. Women recommended the provision of plastic tanks for household irrigation, and substantial shade nets for crop protection against weather changes. Young women mentioned egg production, communal gardens and market linkages so they can sell in town; as well as support for cottage industries e.g. broom making, crochet, cookery and baking. Include linkages with financial services and business development support.
- Market access: Special focus should be given to all farmers on market access activities, building upon the support from IACoV on poultry and vegetable production at household and community levels. Women in Quthing requested securing stable markets for sorghum, a staple crop they produce in significant quantities.
- Inclusive project Review and Design: Ensure project reviews and design accommodate and seek the interests of all groups, including female and male youth, elderly, PwDs, and other vulnerable groups.

[221] In the adaptation plans developed under the IACoV CBPP process, very few activities (only those related to environmental management and agriculture) were supported. Others concerning off- farm activities aspired to by youth, men. women were not supported and monitored

Recommendations related to environmental and social safeguarding

The following specific recommendations were made related to environmental and social safeguarding. However, there are numerous additional issues throughout the report that should be considered by the CO team when developing the ESS and the ESMP.

- Environmental Management: Implement soil conservation measures and sustainable land use practices to mitigate erosion and land degradation.
- Climate Resilience: Strengthen early warning systems and adaptive agricultural practices to mitigate climate risks and enhance crop resilience.
- Livelihood Diversification: Support agricultural cooperatives and training programs for improved farming techniques and market access.
- Gender Equality: Promote gender-sensitive activities addressing GBV, women's economic empowerment, and access to education and healthcare.
- Infrastructure Development: Foster partnerships with relevant stakeholders to facilitate road and bridge construction, ensuring improved access to markets, essential services, and emergency healthcare.
- Community Engagement: Strengthen community policing and local governance structures to enhance safety, law enforcement, and conflict resolution.

Annex 6. Gender Assessment – IACoV phase II

1. Introduction and background

WFP acts as the 'Multilateral Implementing Entity' in the Adaptation Fund-supported project titled "Improving Adaptive Capacity of Vulnerable and Food Insecure Populations in Lesotho (IACoV)" that started in October 2020 and will end in April 2025. WFP is responsible for the key reporting, monitoring, evaluation, and financial management and oversight processes of the project, and ensuring the project meets WFP and Adaptation Fund (AF) rules and regulations. WFP provides technical backstopping to the overall implementation of the IACoV project. The midterm review (MTR) that was completed in July 2023 identified some key operational bottlenecks and recommendations that need to be addressed by the project management unit, WFP, and the Executing Entities in the remaining period of the project lifespan and in the design of a potential phase II. The Designated Authority to the Adaptation Fund of the Government of Lesotho (GoL) aspires to develop phase II of the IACoV project. The GoL wishes to scale up the successful interventions and scale out in other areas not covered by the project and to integrate additional interventions that can support the GoL to address climate change adaptation barriers.

2. Objectives of the Gender Assessment

This Gender Assessment (GA) aims to identify gender differences and provide empirical evidence in the form of qualitative and quantitative data and analysis for gender roles, activities, needs, and available opportunities and challenges or risks for women, men, and different gender subgroups within the context of Lesotho, and in particular the project areas of the proposed project, which would be Phase II of IACoV. While it cannot consider all gender-relevant issues, this GA nevertheless strives to be sufficiently comprehensive to provide a detailed overview of the gender situation, in order to ensure that planned adaptation activities do not perpetuate or exacerbate existing gender inequalities further ("do no harm"), and address differentiated gender needs for a transformative impact ("do good"). The GA provides the analytical foundation for developing gender-responsive implementation and monitoring arrangements, including gender-responsive indicators. It elaborates the gender-specific socio-economic, political, cultural and legal context in which the project will operate; spells out differentiated climate change impacts on different gender groups and sub-groups and their differentiated capabilities to adapt to these; sets out the related findings from the community-level consultations; provides recommendations for gender-responsive measures and the project Gender Action Plan (GAP).

3. Methodology

Gender analysis needs to take place early in the planning process so that an understanding of gender-differentiated issues, roles, and power relations is built into the project. This GA has been prepared using a mix of secondary and primary data. A key source of secondary data was an Integrated Cross-Cutting Context Analysis and Risk Assessment on Gender and Protection in Lesotho (ICARA), conducted by the WFP Lesotho Country Office in October 2023. This thus represented an up-to-date detailed gender analysis, which itself included focus group discussions with affected populations (beneficiaries and non-beneficiaries) in some of the project areas across age, gender, and diversity, to identify gender and protection concerns related to food assistance programming. The ICARA also included key informant interviews (KIIs) and discussions with key gender and protection partners from the NGO, UN, and Government sectors. In line with WFP's corporate guidance, the ICARA analysis focused on the four key aspects outlined in the protection mainstreaming framework: 1) Safety, Security and do no harm principles; 2) Meaningful Access; 3) Accountability to Affected Populations, and 4) Participation and Empowerment. It specifically looked at what the protection risks have been, their causes, and those most at risk from the food security programming in Lesotho. Additional secondary sources integrated into the analysis below included the EU Country Level Implementation Plan for Lesotho (2021), UNDP Policy Brief on Gender and the Revision of the National Determined Contributions (2023), and WB Lesotho: Gender Assessment (2022).

In order to inform the proposal development, an initial draft was prepared based on these secondary sources at an early stage of the proposal development process. This was then further developed through the integration of the findings of the stakeholder consultations at national, district, and community level, in parallel with the elucidation of the entire project proposal. Please see **Annex 3** in the full proposal (FP) for the list of stakeholders consulted at national and district level, **Annex 4** for key points raised by SHs, and **Annex 5** for the local and community consultations report.

Stakeholder representatives consulted with a **specifically gender perspective** included:

- Representatives from the Ministry of Gender, Youth, Sports and Recreation; and gender focal points of relevant national sector ministries, namely from the Ministry of Local Government, Chieftainship, Home Affairs and Police (Child Gender Protection Unit); Ministry of Environment, Food Nutrition Coordination Office; Disaster Management Authority; and the Ministry of Agriculture and Food Security, Department of Nutrition and Home Economics;
- Representatives from local governments in the project districts, namely the Gender focal points for the Mohale's Hoek and Thaba Tseka District Administrations; and
- Representatives from non-governmental and grassroots groups focused on promoting women's and other groups' rights and gender equality who were interviewed for the ICARA process, upon which this GA has built. These were WILSA, Organization of Persons with Disabilities, United Nations Populations Fund (UNFPA), United Nations International Children's Fund (UNICEF), and the Consortium of Lesotho Youth Organisations. In addition, the WFP Lesotho Country Office Nutrition and Gender Focal Point, as well as WFP Regional Gender Specialist, participated strongly in the GA process.

As well as the above, the responses and perspectives of 704 community members in 11 different localities in the four project districts provided primary data for this GA. The community participants included 395 female and 309 male persons; a total of 227 youth were included, of whom 128 were female and 99 male youth. 163 people over the age of 60 were included, of whom 100 were female and 63 male. The consultations also included 19 people living with disabilities PwD (14 female and 5 male). Please see Annex 5 of the full proposal for the local and community consultations report.

These findings were integrated into GA, and the recommendations from the GA were used to develop the project activities. Once the Gender Action Plan was developed, this was further integrated into the proposal, and project activities fine-tuned where necessary.

4. Country context

This section elaborates the gender-specific socio-economic, political, cultural and legal context in which the project will operate. Where available, data are disaggregated across various social factors like age, ethnicity or class to account for intersectionality in the given context. As far as possible, gendered analysis of the agriculture and rural sector in which the proposed project is located is provided.

4.1 Demographics and key gender statistics in the country

Located in the south-eastern part of southern Africa, the Kingdom of Lesotho is a landlocked and mountainous country with a total land surface area of 30,355 km². The country has rugged terrain with elevations ranging from 1,388 metres to 3,482 metres above sea level (masl) and is geographically surrounded by the Republic of South Africa. The climate is temperate with the altitude conferring some alpine characteristics that distinguish it from the rest of southern Africa. Winters are dry and cold while summers are hot and humid. Temperatures are highly variable, on diurnal, monthly and annual time scales. In the highlands, temperatures regularly drop to below zero and some areas may experience ground frost for up to 200 days per year. Annual precipitation ranges from 500 mm in the Senqu River Valley area to 1,200 mm in a few localities in the northern and eastern escarpment; 85 percent of precipitation occurs between October and April, while peak rainfall is December to February.[222]

Lesotho is a lower-middle-income country with high rates of poverty, income inequality, and unemployment, and with notable gender gaps across these indicators.[223] In 2022 the country had a total population of 2,305,825[224] of whom 49.5 percent are male and 50.5 percent are female[225]. The youthful population has a median age of 24 years and includes 51 percent youth between the age of 15 to 30 years. Average life expectancy at birth is very low, at 52 years for males and 58 years for females.[226] The population also consists of 31.7 percent of children between 0 to 14 years of age. The gender ratio between the ages changes as follows: under the age of 15, the sex ratio is 1.03 males per female, between 15 to 24 years of age it changes to 0.99 males per female and between 25 to 64 years of age the sex ration is 0.96 males per female, indicating slightly fewer males than females after the age of 15 years, mainly due to the fact that male mortality rates are higher than female, and more boys than girls migrate to South Africa for employment.[227] In 2019, the elderly population of Lesotho was 7.5 percent of the total population and is projected grow to 10.3 percent in 2050.[228] An estimated 10 percent of the population have some form of disability.[229]

The predominant ethnic group in Lesotho is the Sotho, commonly referred to as Basotho, constituting an overwhelming majority of 99.7% of the country's population. The remaining 0.3% comprises various other ethnic groups, such as the Tswana, Xhosa, and Zulu. The official language of Lesotho is Sesotho, but English is also widely spoken. Much of the population is Christian, with a small minority of Muslims and Hindus.[230]

Lesotho has experienced periods of political instability and insecurity in recent years, which constrain the ability of state institutions to deliver public services. The UN Country Common Analysis (CCA) noted that highly unstable coalition governments, political entrepreneurship, the politicization of the civil service and the security forces, fiscal laxity, and an unfavourable enabling environment for the private sector as reasons for the current conditions. The CCA further identifies people living in rural areas, the elderly, young people, women, people with disabilities (PwD), migrants, sex workers, LGBTQI persons, refugees, and asylum seekers (who are fleeing conflict and prosecution from neighbouring countries) as having been left behind.[231]

Literacy rate and education

Lesotho's literacy rate of 87.2% is above the average for Sub-Saharan Africa. However, the literacy rate for males is 91.6%, while the literacy rate for females is 82.8% with a gap of 8.8% between them.[232] The literacy rates for both males and females have been declining from 2000 to 2005.[233] Lesotho exhibits a 95% school enrolment rate, exceeding the Sub-Saharan Africa average; however, a gender gap exists, with 97% of boys and 93% of girls enrolled in education. Primary school completion stands at 85%, above the regional average, yet a gender disparity is evident, with 89% of boys and 81% of girls completing primary education. Secondary school enrolment is 58% - but 62% for boys while only 54% for girls. Tertiary school enrolment is 13%, below the Sub-Saharan Africa average, with again 16% for men and 10% for women.[234] This shows a consistent gender gap from enrolment in education to retention in primary, secondary, and tertiary education with a consistent disadvantage on girls. There are significant urban and rural discrepancies in enrolment and in the quality of education all round.[235] The digital literacy rate in Lesotho is 57%, while it is 65% among males and only 50% among females, indicating a high disparity of 15 percentage points.[236] The socio-cultural factors that contribute to these disparities are reflected in the analysis below.

While Lesotho does relatively well in some instances on education levels, this has not been reflected in higher incomes for women largely because of prevailing societal norms that prevent women from having access to and control of productive resources like land and restricts them from acquiring skills they need to improve their lives.[237] Although women are responsible for most of the farming in the country, enrolment of women in agricultural courses is limited. Women are found in rural

[222] LMS, 2021. The Kingdom of Lesotho's Third National Communication on Climate Change. Lesotho Meteorological Services.
[223] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[224] https://data.worldbank.org/country/lesotho accessed 22/05/2024.
[225] https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?locations=LS
[226] UN Common Country Assessment
[227] https://www.worldometers.info/world-population/lesotho-population/
[228] UN Department of Economic and Social Affairs (UNDESA). (2019). Population ageing in Lesotho: Country fact sheet.
[229] Lesotho National Development Council. (2016). National disability survey report. Maseru, Lesotho: Lesotho National Development Council.
[230] Central Intelligence Agency. (2023). The World Factbook: Lesotho. Retrieved from https://www.cia.gov/the-world-factbook/countries/lesotho/
[231] UN Country Common Analysis (2023)
[232] World Bank. (2021). Lesotho: Gender Data Portal. Retrieved from https://genderdata.worldbank.org/countries/lesotho
[233] UN Common Country Analysis 2023. Lesotho
[234] Ibid.
[235] UN in Lesotho (2023) United Nations Sustainable Development Cooperation Framework 2024 – 2028.
[236] 2020 World Bank report
[237] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.

development courses but not in Science, Technology, Engineering, and Maths (STEM) courses. New innovative green technologies provide an opportunity for greater participation of women, but this can only be harnessed through the acquisition of the necessary skills.

Urban – rural and access to services

Approximately 70 percent of the population resides in rural areas. The urban population is estimated to rise to 34 percent by 2030 and 46 percent by 2050.[238] Around 45 percent of the population has access to electricity (2019 figure); most people in rural and peri-urban areas use biomass for their energy needs. Access to clean and safe water, another crucial resource required for household needs as well as agriculture, is only available to 29% of the population in Lesotho. Open water sources remain the main source, with women and children responsible for collecting it. With regard to financial inclusion, women have almost achieved parity with men in access to formal bank accounts, with some of the highest inclusion levels in the region; but women continue to rely more on informal sources of finance. For many women, especially in rural areas, savings and loans are predominantly done through local community and informal savings clubs. Mobile money is playing a critical role in driving financial inclusion in Lesotho, while microfinance has not met with much success. Women in Lesotho tend to use mobile money primarily for household services, whereas men use it for larger business transactions. Access to credit is one of the major challenges that women entrepreneurs experience.[239]

Poverty and labour force

Poverty and unemployment are high, especially in the rural areas, affecting mostly women and youth.[240] Although the rate has declined since 2010, 49.7 percent of the population still live below the USD1.90 per person per day international poverty line[241], while unemployment is at 22.5 percent (strict definition) and 38.3 percent (expanded definition). The rate for women is 28% as against 22% of males.[242] The unemployment rate for People living with HIV (PLHIV) is 30%[243] and PwD is 35%[244]. The country is one of the most unequal in the world, with a Gini coefficient of 0.44.[245] The labour force participation rate is 62.6%, with a notable gender disparity. Women have a participation rate of 57.4%, whereas men have a rate of 71.6%, resulting in a 14.2-percentage-point difference between their participation rates.[246] PLHIV, who constitute 23% of the population, have trouble being fully employed as do other vulnerable communities mentioned above. [247]

In Lesotho, women constitute the majority of agricultural workers, accounting for 61% of the workforce as against 39% of men, according to the 2016 Lesotho Population and Housing Census.[248] This predominance can be attributed to various factors, including women's traditional roles in food production and processing within households and limited access to education and non-agricultural employment opportunities, as well as male outmigration for employment opportunities. Moreover, women are more frequently engaged in subsistence farming, primarily producing food for their families, and face challenges in land ownership due to cultural and legal barriers, while 70% of unpaid agriculture labour[249] is also attributed to women. The average woman in Lesotho spends 22 hours per week on unpaid agricultural work, compared to 16 hours per week for men. Additionally, limited access to crucial agricultural resources and services, such as fertilizer, seeds, and credit, hinders women's agricultural productivity, often relegating them to lower-paying roles like weeding and harvesting, primarily due to gender discrimination and limited advancement opportunities in the sector.[250]

Lesotho's history and contemporary reality of migrant labour leaves many women as de facto heads of families. While this has led women to seek employment, including in the formal sector, the gender gaps in economic participation and opportunities in Lesotho have persisted without any reduction in women's double burden of employment and household responsibilities.[251] There are approximately 35% of female-headed households where women are solely responsible for the subsistence of themselves and their dependents.[252] Female-headed households, particularly those headed by single women, experience acute levels of poverty at 64 percent. While gender-disaggregated data are not systematically available, the depth and severity of poverty in rural areas are characterized by marked gender gaps.[253] According to the Lesotho Multi-dimensional Poverty study, 33% of children residing in urban areas face two or more deprivations, while in rural areas 30% face three or more deprivations.

The high number of households in Lesotho that are headed by women is a phenomenon influenced by various factors such as extensive male migration and the prevalence of HIV/AIDS related deaths[254]. This demographic shift not only highlights a statistical trend but also underscores a normative shift in gender roles, as women in Lesotho frequently bear the primary responsibility for crucial aspects of family life like providing food, shelter, and clothing, as well as emotional support for their households.

Child labour

An estimated 130,000 children in Lesotho are engaged in child labour, of whom 50,000 are in hazardous work. Prevalent forms of child labour in Lesotho encompass agriculture, mining, domestic labour, street work, and commercial sexual exploitation. Children involved in such labour are at an increased risk of school dropout and health-related issues. Around 60% of children engaged in labour are boys while 40% are girls. However, girls mostly do more exploitative work like domestic work and commercial sex work, with potentially severe physical and psychological consequences for them.[255]

Health and related concerns

In the health sector, persistent challenges are linked to the need to improve the overall quality of health care, which has gendered outcomes. For instance, Lesotho has one of the highest maternal mortality ratios in the Southern African Development Community (SADC) – and indeed one of the highest in the world, with Lesotho

[238] Lesotho: a diagnostic study conducted by the Climate Resilient Food Systems Alliance. Zero Draft, October 2023.
[239] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[240] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[241] Lesotho Poverty Mapping Report, 2018
[242] Ibid.
[243] World Health Organization (WHO). 2023. Lesotho HIV/AIDS Country Profile. Geneva: WHO.
[244] United Nations Development Programme (UNDP). 2023. Lesotho Human Development Report 2023. Maseru: UNDP.
[245] GoL (2022) National Strategic Development Plan II: Strategic Focus 2023/24 to 2027/28.
[246] World Bank: Labor Force Participation Rate: https://data.worldbank.org/indicator/SL.TLF.CACT.ZS
[247] World Bank, 2023. Lesotho Poverty Assessment: Progress and Challenges in Reducing Poverty. Washington, DC.
[248] Government of Lesotho. 2016. Lesotho Population and Housing Census. Maseru: Government of Lesotho.
[249] Lesotho Integrated Household Survey (LIHS) (2018). Maseru: Government of Lesotho
[250] United Nations. 2021. Gender in Agriculture: Closing the Gap for Women and Girls. New York: United Nations.
[251] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[252] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.
[253] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[254] LIHS (2018)
[255] International Labour Organization (ILO). 2022. Child Labour in Lesotho: A Situation Analysis. Geneva: ILO.

ranking 170 out of 185 countries.[256] The majority of women who die during pregnancy and childbirth had fully attended antenatal care; thus, sub-optimal care was a key factor contributing to these deaths. Childbearing begins as early as 15-19 years, with 19% of adolescent girls already having their first child. The pressure of poverty and food insecurity is a key driver of this trend, especially in rural areas, pushing many young women into early/forced marriage or intergenerational relationships. Within Lesotho, the adolescent fertility rates are considerably higher among the poorest girls (25 percent), girls with primary or no education (32 percent), and girls who live in the foothills (37 percent).[257] Children born to adolescents are more likely to have low birth weight, stunting, or wasting, indicating a need for improved maternal nutrition. The infant mortality rate is 72.2 deaths per 1,000 live births. Approximately 27% of women of childbearing age in the country suffer from anaemia, which elevates the risk of negative outcomes for both mothers and new-borns during pregnancy and childbirth. 22% of women are underweight, compared to 15% of men.[258] Additionally, over 50% of children aged 6-59 months in Lesotho are affected by anaemia, highlighting the enduring and intergenerational consequences of this health issue.[259] Stunting rates among children under five years old in Lesotho exhibited a notable increase, rising from 33.2 percent in 2014[260] to 34.5 percent in 2018, with a higher prevalence of boys under 5 being stunted than girls, which is also more so in rural areas compared to urban settings.[261] By 2024, stunting had increased to 36%.[262]

Gender-based violence

Gender-based violence (GBV) remains a grim reality for many women in Lesotho, as reported by the Police Child and Gender Protection Unit, with 184 sexual offenses and 45 assault cases against women recorded from January to July 2022.[263] Shockingly, in 2021, intimate partners were responsible for at least 47% of women's murders.[264] According to the Lesotho Demographic and Health Survey (LDHS), approximately 35% of women aged 15-49 have experienced physical violence by an intimate partner in their lifetime, equating to 1 in 3 women having faced such abuse. Additionally, 25% of women in the same age group have endured sexual violence from an intimate partner, affecting 1 in 4 women. Emotional violence is also prevalent, with 12% of women aged 15-49 having experienced emotional abuse from an intimate partner, affecting 1 in 8 women. Moreover, GBV tends to be more common in rural areas, where 41% of women aged 15-49 have experienced physical violence by an intimate partner, compared to 29% in urban areas. Furthermore, younger, less educated, and poor women are disproportionately affected, as evidenced by 44% of women aged 15-19 experiencing physical violence compared to 29% of women aged 40-49.[265] Unfortunately, 30% of men and 15% of women in Lesotho think that it is justifiable for a husband to beat his wife under some circumstances, with 35% of men in rural areas believing this compared to 25% of urban men; and 40% of men who have never attended school believe that it is justifiable for a husband to beat his wife, compared to 25% of men who have completed secondary school.[266]

Persons living with disabilities

Persons living with disabilities (PwD) in Lesotho face stigma and discrimination due to misconceptions about their capabilities and stereotypes about disability, which is often perceived as negative by both persons without disabilities and often by PwDs themselves.[267] Attitudinal, institutional, and environmental barriers prevent PwDs from equally participating in Lesotho society. For example, a 2015 study on women with disabilities and sexual and reproductive health reflects that 58% of persons with disabilities are excluded from these activities and decision making. Attitudinal challenges are also present in the home: more than half of persons with acquired disabilities interviewed in one study reported that their spouses left them after their disability onset.[268] Communities appear to believe that persons with disabilities cannot make meaningful contributions to community-based decision making (often addressed in community meetings– Lipitso, or in village-level public work- fato fato). Women with disabilities suffer a double burden because of their status as women – who generally face discrimination based on sex in Lesotho – and because of the discrimination PwDs face because of the attitudinal and institutional barriers related to their disabilities. This leads to denial of sexual and reproductive rights, unemployment, lack of access to education, and limited participation in politics.

Political participation rate

As per the Inter-Parliamentary Union (IPU), women constitute 23% of Lesotho's National Assembly members, slightly shy of the global average of 25%. Nevertheless, this figure falls short of the SADC target of 30%. Additionally, women's representation in the Senate is merely 12%, and they continue to be underrepresented in various decision-making roles, including the cabinet and judiciary.[269] However, Lesotho elected its first female deputy prime minister in 2022, which encourages progress for increased political participation for women. Women's representation in local government (now at 40%) has increased both as elected leaders and as administrative staff, though they largely remain concentrated in technical-level positions with a limited role in decision-making. The existence of male-dominated chieftainships further compounds the favouring of men as key decision-makers and principal owners of key resources within households and communities.[270]

4.2 Policy and legal status

Lesotho is a constitutional monarchy, in which King Letsie III, who assumed the throne in 1996, serves as the head of state under constitutional limitations. The Prime Minister is the head of government, chosen by the elected National Assembly, comprised of 120 members, which functions as the lower house of parliament in a multi-party-political system. Gender equality is fully prescribed in Lesotho's Constitution, which specifically prohibits discrimination on the basis of sex and gender (amongst others) perpetrated by either state or non-state actors (section 18 of the Constitution). The Government of Lesotho is committed to the promotion of gender equity and empowerment, as demonstrated in the National Strategic Development Plan (NSDP) II (NSDP II, 2018-2023), that makes it mandatory for all sectors to address gender concerns and issues through their development programmes. The Lesotho Gender and Development Policy 2018-2030 (NGDP) outlines areas of intervention in the advancement of gender equality and reinforces gender-positive legislation outlined in the NSDP II.

[256] UNICEF 2019
[257] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[258] Lesotho Integrated Household Survey (LIHS) 2018
[259] https://www.who.int/news-room/fact-sheets/detail/anaemia.
[260] Demographic and Health Survey 2014 Lesotho
[261] Multiple Indicator Cluster Survey (2018) Lesotho
[262] Lesotho Demographic and Health Survey, 2024
[263] Mungoshi, R. (2021). Activists call for action as femicide wreaks havoc in Lesotho and beyond. Public Eye.
[264] Lesotho Demographic and Health Survey 2021
[265] Lesotho Demographic and Health Survey 2021
[266] Lesotho Demographic and Health Survey 2021
[267] Report of a National Disability Situation Analysis Ministry of Social Development Government of Lesotho December 15, 2019
[268] WFP Lesotho (2023) An Integrated Cross-Cutting Context Analysis and Risk Assessment on Gender and Protection in Lesotho.
[269] Inter Parliamentary Union (IPU), Lesotho, Gender and Politics (2021)
[270] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.

Despite the appropriate legal and national planning framework for promoting gender equality and the empowerment of women and girls, as set out in the Constitution, the NGDP and the NSDP II, there is lack of effective implementation which leads to gaps in gender equality financing, limited staff awareness and clear articulation of national/sector-specific gender issues during planning meetings, the lack of corporate standards for gender mainstreaming and holding government agencies accountable.[271] Consequently, women's legal status is in effect precarious, their capacity as economic agents is limited, and their rights are not effectively guaranteed. Access to justice is low, with poor perception by stakeholders and citizens on the role and functioning of the judiciary in Lesotho. A backlog of cases in the magistrates' and high court and the weak appeals court adds to problems in this sector. These challenges are further exacerbated by inadequate prosecutorial skills and insufficient capacity of law enforcement officials, including judges at national and district levels, as well as poor coordination among various Ministerial Departments. Thus, Lesotho's scoring for the indicator "Access to Justice", tracked by the Ibrahim Index of African Governance, decreased from 82.7 in 2012 to 60.9 in 2016. Additionally, the balance between customary and state law is unequal, and contradictions between the two legal frameworks often result in customary law, which is generally more discriminatory against women, taking primacy.[272]

The Counter Domestic Violence Act and the Harmonization of Widows Rights with the Legal Capacity of the Married Persons Act have been officially enacted by Parliament; this will contribute immensely to alleviating the plight of survivors of domestic violence and property grabbing experienced by widows in Lesotho. There is a need to harmonize the age of marriage in various laws as well as interpretation of 'minor'. While the Model Law on Child Marriage should also be adopted and adapted, the Ministry of Social Development is working to harmonize the Child Protection and Welfare Bill (2011) provisions on child marriage with other relevant pieces of legislation such as the Legal Capacity of Married Persons (2006) and Sexual Act (2003) and Marriage Act (1974). The country has also made progress in domesticating Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), although marginalization exists to some groups such as PwDs.

Access to land is gendered in Lesotho, supported by customary inheritance laws through which only the first-born male child is entitled to inherit. The heir is required to use the property to take care of all the minors and needy members of the family as well as to discharge other family obligations. The Lesotho Customary Law Amendment Act of 2017 states that only male heirs can inherit land from their parents, which discriminates against women and girls' access to land.[273] However, the Administration of Estates and Inheritance Act was enacted by Parliament in 2024; this introduces abolishment of the customary law heir and the inheritance of a female child and that of siblings regardless of age or gender on an equal basis, allowing all siblings to inherit equally. PwDs have limited opportunities to access land[274] while refugees and returnees are often excluded from accessing land or other resources due to lack of documentation and limited access to information.[275] In 2021 the Persons with Disability Act was adopted to provide for equal opportunities and recognition of rights of persons with disabilities. However, gaps related to dissemination of the Act, structural barriers, compliance with the Act, and socio-cultural barriers still persist.

Lesotho's National Climate Change Policy Implementation Strategy (NCCPIS 2017) and the Nationally Determined Contributions (NDC 2017) both include gender as a cross cutting thematic area where the focus is primarily on awareness creation, capacity building and inclusion in policies and programmes. The Guidelines for Climate Change Policy and Plan Implementation (2018), while also mentioning gender as a cross cutting issue, delve further into specifics of gender inclusion in different areas like traditional medicines, water management, livestock management, etc., thus providing more concrete guidance on gender inclusion into implementation efforts.[276]

Social protection

Over 80 percent of poor households benefit from the social protection programmes[277], which include the national school feeding programme, the child grant, old age pension, disability grant, public works programme and food security programme that provides rations for households that are unable to meet their food needs.[278] The old age pension and the school feeding programme are deemed to have the most substantial poverty-alleviating impact, while the transfer value within the child grant and public assistance programs is insufficient to significantly mitigate poverty.[279] While many are nationwide, some programmes are in targeted areas based on available GoL resources, as is the public works programme which is targeting HHs from Maseru (for road construction, sanitation, environmental conservation), Mohale's Hoek (Western part: dam construction irrigation, agriculture); Quthing (South: road construction, forestry, tourism), Butha-buthe (Eastern: water supply, rural development, and food security) and Leribe (North: road construction, education, and health care).[280] The UN CCA (2023) underlines the lack of capacity within the government to reach all of those in need and specifically mentions that little progress is being made to enhance domestic food security largely related to increasing agriculture productivity.

4.3 Cultural norms and common perceptions

Generally, elders are accorded a strong sense of respect in Lesotho. Young people usually seek guidance from their elders and show interconnectedness, empathy, and solidarity within society. However, customary law which governs marriage, inheritance, property rights and other factors is believed to have contributed to inequalities. This is particularly so for women and girls who often have limited access to education and economic opportunities and are underrepresented in leadership roles both at community and higher governance levels. Mostly women have limited decision-making power within their households and communities which affects their ability to make informed choices about their own lives and those of their children. Traditional practices also discriminate against women and girls' inheritance rights, including access to ancestral lands.

Women are more anaemic and malnourished compared to males, with a higher prevalence of underweight among rural women. Social norms in Lesotho are patriarchal and dictate that women have greater care responsibilities, including childcare, elderly care, and food preparation, while men should be the primary bread winner. This cycle challenges women's economic empowerment, making them poorer and having less autonomy or control over their food and nutrition.[281] Men traditionally have more freedom to exercise their rights, including freedom of movement, compared to women. Men are still expected to act on behalf of women, who

[271] UNDP Lesotho (2022) Gender Audit of the Public Sector in the Kingdom of Lesotho.
[272] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[273] "Gender and Land Rights in Lesotho" by the Food and Agriculture Organization of the United Nations (FAO)
[274] "Land Rights for Persons with Disabilities in Lesotho" by the World Bank
[275] "The Land Rights of Refugees and Returnees in Lesotho" by the United Nations High Commissioner for Refugees (UNHCR)
[276] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.
[277] IMF African Department, "Toward Poverty and Inequality Reduction: The Role of Social Programs".
[278] Government of Lesotho. 2023. Old Age Pension. Disability Grant. Public Works Programme. Food Security Programme. Maseru.
[279] IMF African Department
[280] Government of Lesotho. 2023. Public Works Programme. Maseru
[281] Food and Agriculture Organization of the United Nations (FAO). 2019. "Gender and Nutrition in Lesotho"

are not allowed to make decisions without the consent of their husbands, even in their absence. Where women are widowed, their brother-in-law makes or endorses decisions.[282]

Customary practices around rites of passage may also box boys into subsistence livelihoods and reinforce harmful gender norms. While at one time male initiation schools were in decline, they have become increasingly popular in recent years. They generally take place in the mountains, over a period of 3–4 months, culminating in circumcision. Given the increasing popularity of initiation schools, and worsening education and health outcomes for many rural boys, there is concern that attendance at these schools may be at odds with the development of skills and education needed for socioeconomic mobility. With regard to girls, high rates of poverty, patriarchal gender norms, and the cost of schooling are key drivers pushing many rural girls into early marriage or intergenerational relationships, often at the cost of finishing school. This brings risks of early pregnancy and HIV infection, both of which truncate educational trajectories.[283]

There is still a fear of stigma when reporting GBV.[284] Various social norms drive and normalize GBV, such as the belief that women are responsible for preventing GBV and thus are expected to dress modestly and behave in a certain manner to avoid attacks, and cultural beliefs that confer sexual entitlement to men to control women and which prevent identifying sexual GBV as a serious issue.[285] The Covid-19 pandemic exacerbated these cultural norms; school closures and national lockdowns increased the risk of child labour, domestic violence, sexual exploitation, and early forced marriage.[286]

4.4 Summary of gender and protection-related findings from the ICARA and Global Gender Gap

The 2023 ICARA assessment reaffirmed the high rate of gender-based violence in Lesotho, as well as risks associated with illegal migration and trafficking in person; limited access to land for farming and other livelihood opportunities mainly for young people; high levels of food insecurity and poverty due to recurrent drought, flooding, and landslides; and limited provision of social services mainly in the mountainous areas of districts. These factors exacerbate the protection risks facing vulnerable populations. The exclusion and marginalisation of certain vulnerable individuals and households due to the lack of an up-to-date social registry database and frequent movement of populations make the targeting of beneficiaries for assistance difficult.

The Global Gender Gap Index score for Lesotho in 2021 was 0.681, which places it 92nd out of 156 countries in terms of distance to achieving gender parity. This is a drop of more than 80 places since 2010, when it was ranked eighth out of 144 countries with a score of 0.7678. A key factor accounting for the drop in score is persistent discrimination leading to differences in human endowments, unequal remuneration for equal work, low labour force participation of women, low representation of women in senior positions and management, and women's limited participation in the political system.[287]

Section 5 sets out the findings from the primary data gathered during the district and community consultations, which largely reinforces the national level and secondary data set out above.

5. Differentiated climate change impacts

This section spells out differentiated climate change impacts on gender groups and gender sub-groups and their differentiated capabilities to adapt to these.

There is increasing evidence **from secondary data** on the gender-differentiated climate change impacts globally and in Lesotho. Women and vulnerable populations are more dependent on natural resources for survival and sustenance yet have limited access to these resources due to prevailing inequality in economic, political, and legal influence, which then impacts their ability to cope with the changing climate, further increasing their vulnerability.[288] The SADC Gender Protocol Barometer of 2020 emphasised that climate change and its impacts are not gender neutral within the SADC region. In Lesotho, where 70% of the population lives in rural areas and depends on rainfed agriculture and livestock rearing, the increased frequency of extreme weather like droughts and floods negatively affects livelihoods, leading to food insecurity. Reduced availability of water due to reduced rainfall and degraded wetlands, puts an additional strain on women and children (mainly girl children) needing to walk longer distances, increasing their vulnerability to gender-based violence (GBV). Climate change also endangers health of women and vulnerable groups. Already HIV is feminized in Lesotho with prevalence rates of 27% and 18% among young women and young men respectively. Climate-related disasters can limit access to health care – for example, access to ARV treatments for people living with HIV and AIDS – and amplify risks to maternal and child health. Extreme heat can increase miscarriages and vector borne diseases like malaria and dengue fever.[289]

According to a recent analysis, while Lesotho has established the framework for mainstreaming gender in climate action, it faces several challenges, including (i) lack of sufficient guidance on implementation; (ii) insufficient research on impacts of climate change on local communities; (iii) limited availability of dedicated gender experts; (iv) limited awareness and expertise on gender inclusion; (v) lack of gender inclusive budgeting; and (vi) time constraints in planning and implementation of projects.[290] This analysis made the following recommendations: (i) develop detailed guidelines and an easy-to-use checklist for gender mainstreaming in implementation and mandate adoption of minimum standards for gender mainstreaming in all climate action; encourage partnership with local community groups and promote success stories of gender inclusion; (iii) create a gender working group for climate action with decision-making and encourage participatory approaches to consultation and decision-making; (iv) enhance awareness and skills through training and integration into all courses; and (v) ensure realistic timelines for planning and project implementation.

Specifically, from the district and local consultations, the **primary data** gathered indicates a range of observed climatic changes that pose significant challenges to the lives and livelihoods of all community members, with disaggregated effects on different groups. Across the villages, a range of climatic changes have been observed, namely increased frequency and intensity of drought and dry spells, more erratic rainfall with late onset, and more frequent heavy rains, strong winds extending beyond the previous limits of August and September, disruptions to normal snowfall patterns, increased summer temperatures and extremely cold winters. While drought used to occur once in every five years with minimal impact, currently the impact is severe, the period is prolonged, and it can occur in consecutive years. These climatic changes were identified by all different gender and age groups consulted.

Different groups of community members highlighted **significant challenges to their lives and livelihoods as a result of these climatic changes**:

[282] UN CCA Draft 2023
[283] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[284] USAID (2019) Tackling Gender-Based Violence in Lesotho Through Changing Community Norms
[285] United Nations Population Fund (UNFPA) 2018. "Community Perceptions of Sexual and Gender-Based Violence in Lesotho"
[286] EU (2021) Country Level Implementation Plan for Lesotho.
[287] World Bank. 2022. Lesotho: Gender Assessment. Washington, DC: World Bank.
[288] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.
[289] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.
[290] UNDP (2023) Policy Brief on Gender and the Revision of the National Determined Contributions.

Shift in cropping seasons: While previously rains would begin in August, allowing sufficient time for land preparation, planting now starts in December due to rains that only begins in November-December. Only sorghum, due to its drought-tolerant nature, can be planted in October. Prolonged winter conditions extending into September also contribute to delayed planting. Late onset rains often come as heavy and flash rains that wash away seeds and crops at early stages of germination; farmers often cannot afford the expenses of re-seeding. These changes impinge on all groups, as they fundamentally affect agricultural production and food security. Casual labour activities like weeding, largely benefiting vulnerable households headed by women, are often suspended.

Reduced agricultural productivity and increased food insecurity: Recurrent extreme high temperatures, dry spells, and erratic and heavy rains have reduced production over the years, leaving many fields eroded and bare. During heavy rains, fields are often washed away. Four out of 10 households in two localities in the Mohale's Hoek lowlands were no longer engaging in agriculture; however, this was not the case throughout the districts – for example, in Thaba Tseka, almost all households are still largely dependent on agriculture and livestock production. Unpredictable weather and reduced agricultural output due to pests and other climate-related factors have resulted in food shortages and insecurity. Decreased agricultural productivity and higher production costs due to climate change have caused food prices to rise, worsening food insecurity and straining household budgets.

New and increased pests and diseases: Participants across the different age and sex groups noted emergence of animal and crop diseases and pests in warmer and hotter months that are now difficult to manage and treat using conventional methods that used to work for them. The proliferation of pests like cutworms is damaging crops and fruit trees and vegetables are also affected by pests and diseases, reducing food production.

Water scarcity: Women in particular noted reduced access to clean water for domestic chores and irrigation water for their homestead gardening, as a result of water sources drying up. This particularly adversely affects women, girls, children, who in times of drought travel long distances to fetch water. Men are reported to rarely engage in this activity. This burden is heavy on the elderly, who often pay young boys to fetch water for them, while people with disability rely on other family members. There was lack of water for animals, especially in the lowlands.

Compromised WASH and child care practices: Increased load and long waiting times for fetching water have compromised proper WASH practices, with drinking water often affected, as some of the water sources that were closer have dried up. Proper caring practices and young child feeding is compromised when women leave children behind for an average of 1 to 2 hours to collect water. However, no incidences of domestic violence or any GBV acts connected to this challenge was reported.

Lack of firewood and collection challenges: Community members – especially women and girls – are forced to collect firewood from remote uphill areas that are difficult to access for the elderly, people with disabilities and heavily pregnant women. There is depletion of rich shrubs and animal excreta 'lisu' used in past as firewood. An invasive species is commonly used for firewood (Sehalahala, or Chrysocoma tenefolia). Natural shrubs have become locally extinct because of dry spells, which forces women and girls in some places to travel up to three hours to firewood collection sites.

Indigenous vegetables and medicinal plants scarcity: indigenous vegetables like theepe (pigweed or red amaranth) are now only available during the rainy seasons while some other indigenous vegetables like 'sepaile sa sesotho', qheela' were reported to have become extinct. Some medicinal plants that cure certain livestock and human illnesses are now locally extinct. Consumption of indigenous vegetables like moetsi/salsify and stinging nettle/bobatsi has nearly ceased in recent years due to drought, having a significant impact in Ha Majara, for example, as many people rely on them on a daily basis. Women need to gather these further away, behind the mountains, which may take the entire day; children are left with their older siblings or elderly people.

Rangeland degradation and livestock decline: Rangelands in the foothills were encroached by invading species, while rangelands in the lowlands were highly degraded to the point of dry barren lands. Declining grazing lands brings about conflicts within villages because most households rely on rangelands for animal feeding. Wetlands play a crucial role in maintaining water capacity yet are degraded by livestock. Animals in both zones in Mohale's Hoek, as well as in Thaba Tseka, were stated to be in poor body condition. Conditions have led to diseases in animals, such as blue tongue in sheep. Over the years, these conditions have resulted in animal deaths and a reduced number of livestock per household. In some areas, wild animals are moving to lower altitudes in search of food, encroaching on agricultural lands and consuming crops, as their mountain habitats become less sustainable.

Health impacts: The groups observed a surge in water-borne diseases among people and animals. Flu and cold strains were also mentioned as being common lately in summer months which is abnormal as those are usually winter illnesses. Skin problems especially in young children were also reported as becoming a problem in summer which the group attributed to hot and dry conditions. Use of unprotected water sources was reported to increase illnesses with reported cases of frequent diarrhoea among children under five years. Child illnesses significantly add to the burden of women – for example, in Ha Setoetoe, Thaba Tseka district, the clinic is 2-3 hours walk on foot; it is the responsibility of women to take children to clinics.

Damage to houses and infrastructure from strong winds and dust storms, including solar panels used for pumping and distributing water in Majapereng (lowland), which were destroyed. Water sources, especially in the lowlands, have dried up, forcing households – and particularly women and girls – to travel long hours (3-5 hours) to obtain water from unprotected sources.

Soil erosion and poor soil absorptive capacity resulting from drought and torrential rains, are contributing to desertification in many parts of the districts. Soil erosion on farmland is primarily due to unsustainable cropping practices and the expansion of agriculture into sloped areas.

Some of the **environmental problems** were caused by poor land use and a lack of expertise within the communities. For example, efforts were made in the past to remove Sehalahala (Wild Aster), which seemed to be the main invader, but due to a lack of expertise on how to control and manage it, it keeps coming back. The local extinction of some species, such as Khaka (helmeted guinea fowl), occurred because community members were killing and eating them.

Disruption to traditional communal practices: The youth in the Lithakaling FGD noted that extreme food insecurity has increased selfishness and disrupted traditional practices of communal sharing, such as sharecropping and 'matsema'. Letsema (plural matsema) is a practice where communities work collectively and share food. Disruption to this has affected poor individuals mostly, widowed women, and young couples without land.

Widening economic disparities: Climatic fluctuations have widened the gap between poor and wealthy households. Wealthier households cope better with climatic variability due to diverse and reliable livelihoods such as formal employment.

Vulnerable populations most affected: While all community members are affected by climate change, those most affected were identified as people with disabilities, pregnant and breastfeeding women, and the elderly, who are more affected by climatic fluctuations due to their physiological status; while female and male youth are mostly affected because of high unemployment rates and entrenched poverty. Livestock owners, who are largely adult males, are also significantly impacted due

to deteriorating rangelands. The conditions under which herders – who consist of boys, young men, and older men – work have become more arduous, due to increased heat, greater frequency of storms and lightening, increased heavy snowfalls in the mountains at unseasonal times, and, potentially, increased fires.

Section 6 provides further information on how the lives and livelihoods of women and girls, men and boys, are affected differently by climate change due to culturally established roles such as the gendered division of labour – like caring for children or fetching water/firewood which are largely female roles, or herding, which is a male role and one for which boys are responsible from a very early age.

6. Findings from the community-level consultations

6.1. Summary of rural livelihoods situation from district and local consultations

Primary data from the community consultations reinforce the secondary sources of information that the situation in the rural areas of the targeted districts is one of high levels of poverty, unemployment, lack of access to services such as electricity, sanitation and reliable sources of clean water for household use, as well as water for productive use. In all districts, agriculture is the primary source of livelihood for both women and men, with livestock a significant contributor. Additional income-generating activities include rosehip harvesting, fruit drying (mangangajane), sale of medicinal herbs (khoara), home brewing (Phephesela), Litolobonya stokvel, and mohair and wool shearing. The elderly (from 70 years and above) rely fully on the pension safety net, with their grandchildren aged 5 to 24 also benefiting from the pensions. Young women above 14 years are mostly married to sustain their living and as a coping mechanism for their original households. In large parts of the districts, infrastructure development is minimal, with no provisions for telecommunications, electricity, road construction, bridges, or potable water for some existing or newly established villages. There is significant land degradation and soil erosion in the three southern districts, which reduces the viability of livelihoods. In Thaba Tseka, while there is considerable evidence of overstocking with resultant degradation of the rangelands, there is in general a lower incidence of gully formation. The dominant agricultural practices are subsistence and monoculture with conventional tillage, which depletes the soil, and causes further erosion, resulting in the destruction of biodiversity in the long run. The situation across the districts is one of declining agricultural and livestock productivity, with resultant severe impacts on rural livelihoods of women, men, female and male youth. Firewood and other sources of fuel are depleted, increasing the burden largely for women and girls who have the responsibility for gathering this.

6.2. Gendered division of labour in the project areas and climate change impacts on this

Men take leadership roles in agricultural decision-making, guiding the cultivation and management of crops and livestock. They oversee practices like using organic manure and traditional farming tools such as ox-driven hoes and wooden sledges. Livestock rearing, including sheep for wool and mohair, cattle for farming, and donkeys for transport, is also a significant part of their agricultural activities. Livestock ownership is largely controlled by husbands and young males, influenced by cultural norms that view females as minors who are ineligible for owning animals. Women on the other hand play crucial roles in household food preparation, managing keyhole gardens and cultivating a variety of crops and vegetables. They use organic manure and traditional tools for farming tasks, contributing to sustainable agricultural practices. Women also participate in poultry farming with chickens and engage in income-generating activities like brewing, rosehip sales, and domestic work to support family livelihoods. Youth reported that both males and females actively participate in agricultural activities, focusing on growing commercial crops such as potatoes, carrots, beetroot, and spinach for local markets. They also contribute to subsistence farming of staple crops and indigenous vegetables. Despite challenges such as limited access to agricultural inputs, all youth engage in communal gardening initiatives and both boys and men undertake livestock management tasks like herding, contributing to household food security and economic stability. During the planting season, men plant crops while women do the weeding and harvesting. When men plant, women herd livestock, and during weeding, men herd. These include the elderly and the children. However, if men are unable to plant due to illness, women seek assistance from community members. Vegetables are primarily grown by women aged 36 to 60 years and are dominated by cabbage due to its perceived resilience to climatic variabilities. Women are primarily responsible for gathering fuelwood and fetching water for households, alongside their roles in childcare, cooking, washing, and household upkeep. Boys are commonly hired to care for animals by others or to tend to their own family's livestock. There is some change to the gendered division of labour as a result of climate changes. For example, men in Ha Majara and Ha Setoetoe are currently more involved in looking after children as opposed to some years back. For water and firewood collection during the dry season, men are charging money in exchange.

6.3. Ownership and access to resources

Land is mainly registered under men; however, some women still do own land in the project areas. Youth have limited access to land. Men are the owners the larger livestock, while women and female youth may own chickens and goats. Women tend to have limited access to crucial agricultural resources and services, such as fertilizer, seeds, and credit, which hinders women's agricultural productivity. Youth similarly may lack access to these resources. While the IACoV phase I project has prioritised women's access to resources needed to enhance agricultural productivity, this approach needs to be extended in some of the project sites, for a deeper impact, and to be scaled out into the new areas, particularly in Thaba Tseka. Regarding water for agricultural production, the IACoV phase II should promote structured assessments of water availability gaps, training of farmers especially women, youth, and herders on the application of sustainable, low technology water harvesting and soil moisture systems that address their needs. As set out in the local and community consultations report (see **Annex 5**), there are inadequate levels of access to services such as electricity, sanitation and reliable sources of clean water for household use, as well as water for productive use, in many of the villages in the IACoV districts. This is particularly the case in the mountainous Thaba Tseka district, where road access is also extremely poor. Some of the villages in the southern districts also have very bad road access that hinders market access.

6.4. Access to information and opportunities necessary to participate and benefit fully from the anticipated outcomes of the project

Regarding **understanding of climate change**, although all groups of villagers can describe changing weather trends, there is limited understanding of the causes of climatic changes. This is particularly the case in areas in Thaba Tseka, where the IACoV phase I project did not operate. For example, while the young women's group in Ha Majara, Thaba Tseka, attributed the observed changes to climate change, they were less sure what caused this. Some said that God was angry as they had not obeyed traditional roles, or because of inter-marital affairs.

Regarding **access to climate services and information**, villagers receive climate and weather information through various channels such as radios, SMS – the latter is an IACoV-supported activity of the Lesotho Meteorological Services (LMS), social media platforms like Facebook, and phone apps. In general, groups find the information timely but not always accurate, especially regarding rain predictions by location. Men reported to prefer visual and auditory methods due to limited literacy. There are mixed opinions regarding indigenous knowledge, with youth in general and adult women sceptical about its reliability, while it plays a vital role for some people especially elderly people.

Early warning messages are received through radio stations like Moafrika and Radio Lesotho, along with social media and phone applications. The received information helps the community take precautions and better adapt to predicted weather shocks. In Ha Majara, young men receive climate change messages through Moafrika radio and their community station, which they trust, but don't read messages sent through cell phones because they do not trust the source. Many people do not have radios. Herders can connect to the radio stations through mobile phones, allowing them to stay informed. In some cases youth expressed distrust in both traditional and modern weather forecasts, often ignoring early warnings. Men gather information through public gatherings and bulk messages from government agencies, disseminating it through word of mouth, influencing their agricultural decisions. Not all community members have cellular phones, and many do not have smart phones; a significant challenge is the cost of charging phones, even if the cellular signal is present. Thus poorer people in the more remote villages have reduced access to climate information. Young women stated that no information is received from their children on climate change, indicating a need to deepen the implementation of the school curriculum, which the IACoV phase I project has supported to integrate climate change.

Regarding **access to climate-resilient agricultural extension services**, men, women, and youth have received various forms of support and training from different organizations. Government departments such as Ministry of Environment and Forestry (MoEF) has provided training on proper range management, while Ministry of Agriculture, Food Security and Nutrition (MAFSN) subsidized fertilizer for agricultural use. The World Food Programme (WFP) and IACoV conducted training sessions on nutrition and provided food packages. Capacity development on climate-resilient agricultural technologies has been provided by the GoL with support from the IACoV project; while this has been highly valued and has led to increased production and income, the training has been too episodic and more regular training was requested to allow community members to fully internalise the new approaches and benefit from them. In some villages, such as in Thaba Tseka where the IACoV phase I project was not present, villagers noted that they had only seen agricultural extension officers once in 10 years.

Regarding **access to financial services**, these remain a challenge for both women and men. Some women expressed mixed experiences, with some awaiting financial services and others belonging to societies that provide such services, although access to loans remains limited for some. Where unemployment is high, men and women highlighted the lack of access to loans. However, youth noted the presence of private financial service providers like JP Finance and KK Finance, alongside the availability of services from the Post Bank for employed individuals. Many communities utilize Savings and Internal Lending Communities (SILC) and stokvels, with women in particular forming groups to loan each other money with interest repayment mechanisms in place. While there has been some **access to business development support** – for example, Catholic Relief Services (CRS) offered training on business proposals to youth in Tsatsane, in Quthing, alongside health screenings and services including HIV testing and chronic disease treatment administered by the Ministry of Health – this has been insufficient to meet the need and assist different sub-groups to develop sustainable entrepreneurial businesses.

6.5. Gendered decision making

Views from all groups highlight that decisions within the household are usually a joint effort between men and women, with children excluded due to the perception that such matters are too weighty for them to handle. Women often defer to men's decisions, especially regarding employment opportunities. Both genders agree that household decisions should be handled by adults, with children excluded from responsibilities such as meal preparation and decisions about their schooling. Women also expressed frustration at times being treated as minors, limiting their ability to seek employment even when family conditions are not favourable. In terms of agricultural production, decisions on what, when, and how to cultivate are made jointly, although men often maintain greater authority in this domain. Educational decisions are also collaborative, influenced by available resources, particularly financial, which dictate the choice of schools that children can attend. Sales of livestock are typically discussed with male children.

6.6. Food security and daily diet

Most of the project areas included in the community consultations have a daily diet that is not particularly diverse, although this has increased substantially where IACoV interventions have been well implemented. In Thaba Tseka, which is more mountainous than the southern districts, the diversity of the daily diet is particularly poor and mainly consists of papa (a type of stiff maize porridge) and vegetables (especially cabbage) for both adults and children under five, significantly impacting dietary diversity. Vegetables, primarily grown by women aged 36 to 60 years, are dominated by cabbage due to its perceived resilience to climatic variabilities. During the lean season, women prioritize the limited food available to young children although in some households this results in conflicts with men disagreeing with this prioritization. While beans are grown in all the districts, they are the least prepared food due to their long cooking time and the challenges associated with sourcing firewood. Where nutrition clubs are present, these are perceived in a positive light. The nutrition clubs are set up in alignment with policies and regulations provided by the MAFSN and are registered as legal entities such as associations or cooperatives with support from the MAFSN and projects like SADP. This formal registration is crucial for their sustainability, as it grants them legal recognition and the ability to engage in formal agreements, access funding, and receive other forms of support. Members of the clubs include women, men, youth, people living with disabilities. They engage in activities such as nutritional education, practical demonstrations (e.g., cooking classes), and support for agricultural practices (e.g. community gardens). IACoV phase I provided guidance on governance and financial management to the nutrition clubs and distributed resources such as seeds, tools, and educational materials.

6.7. Gender-based violence and impacts on education and childcare

The food insecurity situation in the communities often leads to adult negligence, teenage pregnancy, underage sex-work and rape; which were raised as concerns in both communities. Parents leave young children on their own either because parents have gone out to fend for the household or have gone to the bars/ taverns. This habit exposes children to sexual predators and use of drugs and alcohol at young age. Some of these children end up trading in sex to feed themselves and their siblings as there are no parents to take care of them. The communities mentioned that most rape cases go unreported due to stigma and because some parents resort to taking monetary compensation from the perpetrators. The men indicated that some parents especially women arrange for older men to engage in sexual activities with their young daughters in return for payment and this has made young girls see rape as a norm or a kind of initiation they must go through.

Arranged marriages are common, with the women in the community encouraging girls to wed men they might not have met on the grounds of their financial status. Child marriage for girls as young as 12 years is prevalent limiting young girls, who attain only primary education or less. The young engagement into marriage limits their ability to make sound decisions regarding food and nutrition security at household level.

Intimate partner violence/domestic violence is an acceptable norm among men of all age groups and considered another threat denying women an opportunity to freely network and embark on profitable food source strategies. Due to its nature and emotional impact, gender-based violence (GBV) remains a significant concern in most communities. Women sometimes rationalize domestic violence, viewing it as justified, and even report feeling closer to their husbands afterward, despite the emotional and physical toll. The youth noted instances where men are also victims of abuse, particularly when they fail to bring home money after being paid. In general, all groups acknowledged the prevalence of GBV, with men admitting to resorting to violence in response to issues such as insults while intoxicated, lack of meals being prepared, or jealousy. However, there were instances where men in a village admitted to the presence of GBV while the women did not, indicating the

sensitivity of this issue and need for further sensitisation on it. Movement of women and girls is not free as a result of the prevalence of rape which unfortunately is seldom reported.

Children, particularly girls, face risks migrating for work due to household economic pressures, exposing them to exploitation and limiting educational opportunities. Boys are widely exposed to child labour as they are usually hired as herders and for other casual jobs to provide for their families. They may also be exposed to abuse of drugs and alcohol. Gangsterism was also reported to be on the rise in some communities, affecting boys and men.

6.8. Interlinkages and knock-on effects of climatic changes

The findings from the community consultations that have informed this GA indicate the interlinkages between and knock-on effects of climatic changes experienced by the rural communities. Thus, the increasingly erratic rainfall and more frequent drought and dry spells result in poor agricultural productivity and frequent crop failure; this low food production leads to poor nutritional status of children which affects school performance and attendance, which in turn affect growth of the economy. The poor rainfall performance and recurring dry spells affect livestock and herding jobs, while bringing problems of livestock diseases and pests that decrease livestock productivity. At the same time, the recurring climate shocks are intensifying land degradation and reducing arable land while increasing vulnerability to climate induced hazards. The poor rains and dry spells also affect nutritional status of children and therefore also their development and academic performance. The presence of climate smart agriculture and water harvesting techniques in some localities, largely related to the support of the IACoV project, indicate a positive drive towards ensuring sustainable vegetable and backyard crop production that contributes to diversified diet.

6.9. Summary of existing and envisaged gender differences in vulnerability and adaptive capacity

The findings of the gender assessment indicate that there are anticipated gender differences in vulnerability and adaptive capacity among women and girls, men and boys, in the project areas for IACoV phase II. Those most vulnerable to the changes, and most affected by them, are poorer households and those with a single woman as head, people with disabilities, pregnant and breastfeeding women, and the elderly; female and male youth who may lack voice and access to land and resources; young girls who are forced into early marriage by food insecurity and poverty exacerbated by climate change, and young boys who become herders or have to take up casual labour at a young age. Girls and boys in the rural areas both suffer from reduced education levels which affects their adaptive capacity, not least in terms of limiting their options for livelihood diversification.

As climate change effects continue to deepen, existing gender inequalities in the proposed project areas will be exacerbated by climate change impacts. The findings of the community consultations show that the livelihoods of women and girls, men and boys, have already been affected differently by climate change due to culturally established gender roles like the gendered division of labour (both paid and unpaid). Thus, as expected, women and girls are spending increased time travelling to collect both water and firewood in most project villages, which reduces time available for child care, cultivation of vegetable gardens, educational advancement, and entrepreneurial activity. Girls are being removed from school at an earlier age to enter into arranged marriages, as a coping mechanism, preventing them from gaining the opportunities that education could confer. Many boys are receiving even less education, as they are sent to herd livestock from as young as six years old. This sets them on a trajectory that often leads them to become involved with criminal gangs with high risks to their lives if they join illegal mining operations in South Africa. The consultations also show an increased prevalence of gender-based violence (GBV) linked to increased food insecurity and the hardships and frustrations that engenders, as well as reduced educational levels, that have exacerbated culturally-sanctioned behaviour.

6.10. Intersectionality in vulnerability and adaptive capacity

Vulnerable sub-groups experience intersectionality with respect to their climate vulnerability and adaptive capacity. For example, rural poor women suffer from intersecting layers of vulnerability – for example, vulnerability tends to be higher in the rural areas, and women are more adversely discriminated against than men in terms of access to land and by cultural norms that hold that women are not suitable to be leaders, etc.; in addition, poorer women are more vulnerable as they have less resources that could assist them to adapt to climatic changes. Reduced education levels, for example through being forced to leave school at an early age and enter into an intergenerational marriage as a coping mechanism for the household, further exacerbate the vulnerability of rural poor women, especially young women currently, and reduce their adaptive capacity as those who are uneducated may have less knowledge about inexpensive adaptation mechanisms that could reduce their vulnerability.

6.11. Youth-related findings

Although youth across the localities where the IACoV project had been implemented indicated that they had benefited from resilience activities as well as the anticipatory action (AA) response, in several cases youth mentioned that they were not afforded adequate participation in project activities by their elders, and/or were not that interested in communal activities. Given the serious levels of unemployment of female and male youth, this points to the need for a specific package of activities to be developed for youth that includes individual / entrepreneurial opportunities. High levels of youth unemployment have seemingly contributed to an increase in behaviour such as GBV and drug abuse.

6.12. Gender-related lessons learned from the ICARA process and the IACoV Mid-term Review

In addition to the above findings, a number of important lessons learned from IACoV phase I implementation have been distilled through the ICARA process, as well as the IACoV Mid-term Review (MTR). These lessons learned can be summarised as follows:

- Targeting and community engagement and feedback mechanism: The ICARA found that the exclusion and marginalisation of certain vulnerable individuals and households due to the lack of an up-to-date social registry database and frequent movement of populations make the targeting of beneficiaries for assistance difficult. Systematic community involvement and participation at all stages of the programme cycle requires improvement to ensure that the most in-need people are assisted, and that no one is left behind. Subsequent to the ICARA, the NISSA database, which is used for targeting, is being updated using World Bank funding. This allows visibility of those in programmes and those not, making it possible to see who could be included in top-ups and where to have horizontal expansion. Deliberate community engagement action and restrengthening the existing channels of community feedback mechanism can further assist with this priority.
- Gathering and building on lessons learned: It is important to capture lessons learned on gender equality and women's empowerment outcomes through surveys and more qualitative case studies to build evidence.
- Value of the climate adaptation approaches and technologies: The new climate adaptation technologies and new opportunities under IACoV phase I have created new knowledge for women and men, encouraged women in particular to create home gardens that gives them better access to diverse

nutritious food. Both women and men have gained technical knowledge on conserving soil and water. However, more male engagement on nutrition and dietary diversity programming is needed.

- Gender-responsive interventions: IACoV phase I implemented a number of methods to make project activities more gender-responsive, so that women and men could be engaged equitably on climate adaptation measures. These included having flexible hours for working on communal asset creation without conflicting with their daily livelihood chores, providing support for childcare to enable women to engage in trainings, which can lead to personal development while participating in community activities that facilitate ecosystem regeneration.
- Positive effects of the nutrition interventions: In Phase I of the IACoV project, nutrition interventions focused on enhancing food security, improving dietary practices, and providing targeted nutritional support. Key actions included provision of cash-based transfers to address immediate hunger needs during the lean season, promoting horticulture and small livestock production for nutrition, and delivering nutrition messages to different socioeconomic groups. These interventions led to significant positive impacts: vegetable production improved at household and community levels; household food consumption improved; and community members benefited from increased awareness about nutrition, leading to improved overall dietary habits and health outcomes.
- Enhance youth engagement: The ICARA and the MTR both found that there seemed to be a lack of interest amongst youth to take part in the resilience building and adaptation activities and recommended there should be wider consultation with female and male youth to identify opportunities to engage them in the programmes. Consultations amongst youth during the project development phase for IACoV phase II have indicated that while youth are indeed interested in participating in and benefiting from the project activities, many would prefer to engage in individual as opposed to communal activities and would like to pursue entrepreneurial opportunities.
- Income generating activities: It has been observed that beneficiaries are reinvesting their incomes gained through the project back into project-related activities. This has created great ownership towards the project, but it is important to understand how this would create economic value to the community and sustain their incomes in the long run.
- Time-use and benefits survey: A time-use survey of women and men's participation in the project was recommended, to give a clear understanding of whether the project was creating additional burdens on women or men, and to identify how they are benefiting differently from the project. If time burdens are higher for either women or men, the project needs to consider corrective measures to reduce time poverty. For example, if women are working higher numbers of hours at the project and at home, they project should consider how men and boys can be better engaged to complement the work in the project and also at household level. The work norms are designed in a manner that men and women spend four hours in the community assets and four hours in their homes, which is appreciated by men and women as well as youth. This has been practised in phase I and has proved to be successful. However, a time-use and benefits survey would provide evidence that would be useful to learn from for the proposed phase II.

Phase I of the IACoV project identified several opportunities to expand paid work for marginalized gender sub-groups through its various interventions:

- Skills development and training: The project provided training and capacity-building interventions that equipped women, youth with skills in nutrition, preservation, and cottage industry. This training has opened opportunities for paid work in farm and off farm areas.
- Support for women entrepreneurs: By promoting sustainable agricultural practices and supporting local food production, the project created avenues for women to start and run small businesses, such as poultry, piggery, apiculture, tree seedling production or art crafts which are crucial in the local economy.

The above lessons, as well as the findings of the gender assessment and community consultations, have been factored into the recommendations as set out below, as well as the Gender Action Plan.

7. Recommendations for the proposed project

Given the above analysis, it is recommended that the project development process for the IACoV Phase II consider the following, in order to develop corresponding gender-responsive measures addressing differential gender needs, equitable participation and equitable distribution of benefits, resources and rights. These recommendations aim to show how the gender-specific vulnerabilities and impacts identified can be reduced and addressed by inter alia increasing the capabilities of different gender groups and sub-groups to adapt. The project actions will be specifically designed to do no harm by not increasing women's or girls' unpaid care burden further, and to alleviate them through capacity building and provision of skills and resources that empower them to manage their caregiving responsibilities more efficiently.

⇒ **Develop project-specific gender guidance**: Develop detailed and project-specific gender guidelines and an easy-to-use checklist for gender mainstreaming during implementation, building on relevant lessons learned from IACoV phase I as well as WFP and GoL best practice, and in accordance with the Gender Policy of the AF. This should include spelling out how the functions and roles expected for different sub-groups of women and men to take on in the context of the project should be implemented to not adversely affect time commitments and to consider mobility restrictions/needs.

⇒ **Gather and disseminate gender-related lessons learned**: The project should gather lessons learned on gender equality and women's empowerment outcomes through surveys and more qualitative case studies to build evidence. This should capture aspects of increased decision making and autonomy, increased opportunity for livelihoods for women as well as improvements in dietary diversity within the households. A time use survey could be conducted under the final evaluation or planned a sa separate follow-up activity to provide evidence on whether the project effectively tackled or worsened the disparities in time allocation.

⇒ **Continue and enhance climate awareness raising and climate adaptation skills**: Enhance awareness of climate change and adaptation options for all groups and provide targeted skills training to expand the climate-resilient livelihood options for all groups, with gender issues integrated into all courses. Ensure that production promoted is climate-resilient, as per IACoV phase I, to enhance domestic food security related to increasing agriculture productivity. Continue the work under IACoV phase I to engage women and men equitably on climate adaptation measures, such as having flexible hours, having support for childcare, maintaining the independent complaint feedback mechanism, reducing walking distances to the project sites, and encouraging women to assume decision making roles.

⇒ **Ensure targeted, localized, and accessible last mile climate services for all groups**: Building on the findings of the community perceptions and indigenous knowledge study conducted under IACoV phase I, ensure that the last mile climate services to be developed are suitably localized, through enhanced accuracy of the forecast and development of agro-met advisories, and are targeted for all sub-groups. This should include those who are not able or willing to access LMCS on their phones, such as older women and men, those who do not have smart phones, and those who do and would trust these services more, such as male youth. The corps of LMCS disseminators to be supported by phase II should include individuals and groups from all socio-economic, sex, and age groups.

⇒ **Continue and strengthen the nutrition interventions**: The nutrition interventions under IACoV phase I, such as nutrition clubs, should be continued and expanded into the new project areas, with clear links made between climate change and nutrition. More male engagement on nutrition and dietary diversity programming is needed, as, in many households, women migrate to find work leaving men in charge of childcare. Herders should also be included in the nutrition programming. Continuous training should be provided to the nutrition clubs versus the once-off training under phase I to ensure that members can effectively manage their activities and adapt to new challenges where clubs exist. The project should offer regular advisory services to help clubs with legal, financial, and operational issues. Given the successes in the functionality of the nutrition clubs in areas where they are established, the project should support replication of the clubs in the communities where they do not exist.

⇒ **Develop a package of interventions specifically targeted at youth**: Identify opportunities to engage female and male youth in IACoV phase II and consider piloting individual and entrepreneurial climate adaptation activities that are attractive to the youth, as well as providing leadership opportunities for them. This package should include increased and iterative awareness raising on climate change and its effects; understanding of and ability to participate in anticipatory action and last mile climate services, including digitalised services; sensitisation on nutrition and GBV; enhanced adaptation capabilities and associated IGAs of interest to youth such as vegetable production through keyhole gardening, organic compost making, value-addition to invader species gathered e.g. rosehip, etc.; market access facilitated for selected value chains; and business development support and access to credit for entrepreneurial activities.

⇒ **Develop a package of interventions specifically targeted at herders**: Herders play an important role in rangeland management, which is increasingly significant for phase II of the proposed project in the new district of Thaba Tseka. This package should include increased and iterative awareness raising on climate change and its effects; sensitisation on nutrition and GBV; enhanced adaptation capabilities for good rangeland management (together with the owners of the livestock herds), including fire management and firefighting, wetland protection, rotational grazing; specific IGAs such as briquette making from manure and beekeeping, linked to market access; climate-resilient livestock shelters; and understanding of and ability to participate in anticipatory action and last mile climate services. Individual herders can be included in the climate champions group that the project intends to nurture.

⇒ **Support ongoing women's and vulnerable gender sub-groups empowerment and leadership in project structures**: Build on and strengthen the approach of IACoV phase I to overcome existing constraints that hinder women and vulnerable gender sub-groups such as female and male youth, PwDs and PLHIV from assuming project leadership roles. This will include removing barriers related to health status and ensuring equal opportunities for vulnerable gender sub-groups in leadership positions. The project should promote an inclusive and supportive environment that enables marginalized socio-economic groups to take on leadership positions while addressing any challenges they may face.

⇒ **Promote equitable access to resources for women and vulnerable gender sub-groups through project activities**: Building on the approach adopted by IACoV phase I, the project should continue and expand efforts to specifically reach women and vulnerable gender sub-groups through targeted outreach activities. This includes identifying and addressing barriers they face in accessing resources. The project should offer training and capacity-building opportunities for women and vulnerable groups to enhance their skills, knowledge, and confidence in accessing and utilizing available resources.

⇒ **Continue and enhance sensitisation on GBV**: Ongoing sensitisation is needed to counter the deep-seated social and cultural norms that drive and normalize GBV, which has been exacerbated by the increased food insecurity and poverty resulting from climatic changes. The project should build on and strengthen the social and behaviour change communication (SBCC) on GBV that was supported during phase I, working with key partners including the Ministry of Gender at the district level and NGOs active in the field, and involving all community age and sex groups in this to advocate for and support the implementation of policies and practices that reinforce SBCC efforts and provide a supportive environment for addressing GBV. The project could also identify the referral pathways and build the capabilities of officers (government and WFP) to sensitize the community on the GBV referral pathways.

⇒ **Enhance access to IGAs targeting different groups, with facilitated market access**: To deal with high levels of unemployment and to offset the gendered labour force participation rate, and promote economic empowerment of groups that are lagging, the project should deepen and expand the activities supporting IGAs for vulnerable and economically disempowered groups. This should include women, female and male youth, and male herders of all ages. As unemployment rates are high for people living with HIV (PLHIV) and PwD, the project should strive to support those groups through targeting and IGA support. All capacity development to promote IGAs for different groups should strive to link groups and individuals to expanded market opportunities that would provide dividends to women and men of different ages, for enhanced sustainability.

⇒ **Enhance access to financial services and business development**: Phase II should enhance access to financial services and business development by strengthening informal groups and facilitating linkages with formal service providers in the project areas. This should include increasing access to credit, which is one of the major challenges that women entrepreneurs experience. This will include strengthening informal sources of finance that are very important for women in rural areas, such as the local community and informal savings clubs, as well as facilitating access for youths to integrated financial services packages such as those offered by EcoNet.

⇒ **Build on and strengthen the community feedback mechanisms**: Phase II of the project should build on and strengthen the community feedback mechanisms employed under phase I, specifically by engaging an independent service provider that is not engaged in the implementation processes of the project and can ensure a neutral closure of the complaints raised by the stakeholders.

⇒ **Create/support gender and climate action groups at district and national level**: Create district gender working groups for climate action to encourage inter-sectoral collaboration and participatory approaches, with a clear mandate and areas for decision-making, to promote structural and

ongoing gender/climate action beyond the project. These district-level groups should include NGOs and any relevant private sector organisations operating in the area. Link these to an existing structure at national level – for example, the National Climate Change Committee – to promote two-directional lessons learning and policy advocacy, and provide initial capacity development support, to be taken over by the Ministry of Gender which will be co-opted onto the structures, for ongoing sustainability. This last recommendation is of a more structural nature, and specifically intended to support the GoL as well as NGO and private sector service providers to continue providing support on the gender-climate action nexus once the project has concluded.

Table A6.1 Indicative Gender Action Plan

Impact statement: Enhanced adaptive capacity, resilience and food security of vulnerable and food insecure households and communities to the impacts of climate change on food security in the targeted districts of Lesotho, with a focus on women and youth to promote gender equality.					
Outcome statement: An estimated 17,280 female smallholder farmers and 11,520 rural youth in the four districts (Thaba Tseka, Mafeteng, Mohale's Hoek and Quthing) have improved their agricultural productivity, income and savings in a climate-resilient way, through risk layering of climate services, anticipatory action, enhanced awareness of climate change impacts, asset creation based on regenerated landscapes, increased climate-resilient production, and enhanced market linkages					
Output statement: 1. Women, youth and men smallholder farmers in the project area with increased access to gender-responsive localized climate services					
Activities	**Indicators[291]**	**Targets**	**Timeline**	**Responsibilities**	**Costs USD**
(i) Scaling out of anticipatory action for drought system to all 10 districts prioritises gender equality in training of stakeholders (output 1.2.1)	1.2.1.a. No. of staff trained (on AA for drought) to respond to, and mitigate impacts of, climate-related events (by gender) (AF 2.1.1.)	• MT: 90 men, 60 women, 10% youth • End: 120 men, 80 women, 10% youth	Start by Y1; activities conducted annually By MT: By Y5:	PMU, LMS, DMA	350,860 (output 1.2.1 budget)
(ii) Gender-responsive last mile climate services developed and disseminated on an ongoing basis (output 1.3.1)	1.3.1.b. Number of smallholder farmers, disaggregated by gender and age, who have enhanced access to localised climate services	• MT and End TBD at inception • Disaggregated by women, men, female youth, male youth • 60% female; 40% youth	Start by Y1; activities conducted annually through in-person and digitalised dissemination	LMS, MAFSN, local communities	446,848 (output 1.3.1 budget)
(iii) Develop project-specific gender guidance[292]	GAP1. Set of project-specific gender guidelines	• MT: 1 • End: 1	Start during Inception. MT: 1 End: 1	WFP CO and Local Gender and Nutrition Expert	Portion of Local Gender and Nutrition Expert fees, TBD
Output statement: 2. Women, youth and men smallholder farmers and entrepreneurs in the project area with strengthened understanding of climate change impacts and response options					
Activities	**Indicators**	**Targets**	**Timeline**	**Responsibilities**	**Costs (USD)**
(i) Strengthened national and district level institutional structures and systems for climate change awareness raising and communication are gender-responsive and target youth, women, and men (output 2.1.1)	2.1.1.a. Percentage of targeted population, disaggregated, aware of predicted adverse impacts of climate change, and of appropriate responses (AF 3.1.)	• MT: 30% overall • End: 60% overall • disaggregated according to M/F/MY/FY	Start in Y1 • MT: 30% overall • End: 60% overall • disaggregated according to M/F/MY/FY	LMS, NCCC, PMU, community members, secondary SHs identified in NCCCS	646,735 (output 2.1.1 budget)
(ii) SBCC approaches on CC-FS-GEN-NUT nexus are wide-reaching and target women, men, youth	2.1.1.c. # people reached through inter-personal SBCC approaches on CC-FS-GEN-NUT nexus (sex- and age-disaggregated)	MT: 400,000, of whom 60% are female (including FY); 40% all youth	Start in Y1. By MT: 400,000, of whom 60% are female (including FY); 40% all youth	LMS, PMU, WFP, ministry of Gender, Police CGPU	Included in budgets for outputs 2.1.1 and 3.1.1)

[291] Indicator numbers refer to the number of the indicator within the project results framework, with the exception of GAP1..
[292] This will include a comprehensive approach to address gender norms, attitudes and behaviour – including through sensitisation and targeting.

proportionally (output 2.1.1 and output 3.1.1)		End:1,109,760, of whom 60% are female (including FY); 40% all youth	By Y5: 1,109,760, of whom 60% are female (including FY); 40% all youth		
(iii) Non-formal institutions targeting vulnerable groups like herders are targeted in the scaling out of teacher training (output 2.2.1)	2.2.1.b. # non-formal institutions trained on CC-FS-GEN-NUT nexus	• MT: 50 • By Y5: 100	Start in Y1 By MT: 50 By Y5: 100	PMU, DoE, MEF, MAFSN, Traditional authorities	Exact amount TBD, included in budget for output 2.2.1
(iv) Children are targeted in enhanced training on CC-FS-GEN-NUT linked with WASH	2.2.1.d. number of primary and secondary school children receiving enhanced teaching on CC-FS-GEN-NUT nexus	• MT: 40,000 (20,800 girls; 19,200 boys) • End: 80,000 (41,600 girls; 38,400 boys)	Start in Y1 By MT: 20,800 girls; 19,200 boys By Y5: 41,600 girls; 38,400 boys	PMU, WFP, Ministry of Education, MoH, NGOs	Included in budget for output 2.2.1, which has a total of 376,295
(v) Learning, knowledge management, and communication strategy tracks impact of project gender interventions (output 2.3.1)	2.3.1.b. Policy brief highlighting key lessons learned, including effectiveness of training/sensitisation activities and CC-FS-GEN-NUT nexus 2.3.1.c. Action research reports to generate evidence for policy advocacy on project approach, including CC-FS-GEN-NUT nexus	• MT: 0 • By Y5: 1 policy brief • MT: 6 • By Y5: 10	Policy brief will be developed in Y5 Action research reports will be commissioned starting Y1 • MT: 6 • By Y5: 10	PMU, research community	Included in budget for output 2.3.1, which has a total of 499,530
Output statement: 3. Women, youth, men, herders with increased ability to implement climate-resilient agricultural and livestock practices, strengthened IGAs, value chains and market linkages developed to underpin diversified and climate-resilient livelihoods, supported by strengthened enabling environment for gender-responsive and climate adaptive social protection					
Activities	**Indicators**	**Targets**	**Timeline**	**Responsibilities**	**Costs (USD)**
(i) Participatory community adaptation plans are developed with full participation of women, youth, herders (output 3.1.1)	3.1.1.a. # community-based resilience and adaptation plans in targeted areas 3.1.1.b. % women and youth reporting higher levels of meaningful participation in community planning	• MT: All 18 targeted villages have local adaptation plans • MT: TBD at inception • By Y5: TBD at inception	Start by Y1; activities conducted annually • By mid-term TBD at inception • By Y5: TBD at inception	MEF, MAFSN, Ministry of Gender, community members	440,165 (output 3.1.1)
(ii) Community and individual nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation benefit 60 % female and 40% youth participants (output 3.1.2)	3.1.2.b. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies (AF 6.1.1.)	• MT: Community: 250; HHs: 2,500 (no. of assets) • End: Community: 300; HHs: 5,000 no. of assets • At least 60% women and 40% youth beneficiaries	Start by Y1; activities conducted annually By MT: Community: 250; HHs: 2,500 assets End: Community: 300; HHs: 5,000 assets At least 60% women and 40% youth beneficiari	MEF, MAFSN, WFP, DA, NGOs, Development partners	2,998,556 (output 3.1.2)

(iii) Recurring and enhanced climate-resilient agricultural training targets women and youth smallholder farmers (output 3.1.2)	3.1.2.f. Number of smallholder farmers, disaggregated by sex and age, who report benefits from enhanced gender-responsive climate-resilient agricultural extension	• MT: TBD at inception • End: 5,600; of whom 2,848 women, 1,152 men, 832 female youth, 768 male youth	Start by Y1; activities conducted annually • MT: TBD at inception • End: 5,600; of whom 2,848 women, 1,152 men, 832 female youth, 768 male youth	MEF, MAFSN, ARCs, WFP, DA, NGOs, Development partners	227,250 (budget for activities 3.1.2.b and 3.1.2.d.)
(iii) Support for IGAs with access to business development support and microfinance is more gender-responsive and targets primarily women, as well as youth and men (output 3.1.3)	3.1.3.c. # women, youth, herders reporting higher levels of access to business development support, and microfinance	• MT: 1,000 [W: 500, Y: 400, herders: 100] • End: 2,000 [W: 1,000, Y: 800, herders: 200]	Start by Y1; activities conducted annually • MT: 1,000 [W: 500, Y: 400, herders: 100] • End: 2,000 [W: 1,000, Y: 800, herders: 200]	MAFSN, NGOs	125,000 (budget for activity 3.1.3.b)
(iv) Value chain and marketing support for climate-resilient value chains is gender-responsive and facilitates market linkages to enhance diversified livelihoods focusing mainly on women and youth farmers and entrepreneurs	3.1.3.d. Number of farmers (women, men, female and male youth) reporting increased income as a result of value chain and marketing support	• MT: 2,000 [1,000 W, 200 M, 400 FY, 400 MY] • End: 3,000 (1,500 W, 300 M, 600 FY, 600 MY)	Start by Y1; activities conducted annually • MT: 2,000 [1,000 W, 200 M, 400 FY, 400 MY] • End: 3,000 (1,500 W, 300 M, 600 FY, 600 MY)	MAFSN, private sector, local communities	752,339 (total budget for output 3.1.3)
(v) Policy advocacy and systems development to support gender-responsive and climate adaptive social protection	3.2.a. Climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT[293]	0 reached by project mid-term (Y3) 1 strategy expected by project end (Y5)	Start by Y2 By Y2: Forum created for institutionalizing gender-responsive CRM By Y5: 1 strategy	WFP, MEF, MAFSN	294,639 (budget for output 3.2.1)

Selection of beneficiaries and presence of unidentified sub-projects (USPs)

The key criteria to select the direct beneficiaries (communities and individuals) are climate risks, high levels of vulnerability and poverty, as well as gender related socio-economic variables, including high levels of GBV. Previous investment levels in the targeted areas, and interest to participate in the programme, were also considered (see section I.B in the Full Proposal). The proposed project will target 18 community councils within the 4 target districts. While the community councils for phase II have been selected based on climate risk, poverty, and gender vulnerability levels, the exact locations for the community asset creation activities will be identified based on the findings of the CBPP processes in each targeted village.

However, the presence of USPs does not only relate to the locality of community resilience structures, but also to the fact that under the WFP – and indeed GoL – standard approach of community-based development, the beneficiaries in this project will make informed decisions about whether and how to participate in specific activities. And these need to be informed decisions – in other words, based on sensitisation and community-based planning activities that will be carried out under the project. The project has been designed so that there is a logical progression of project activities. Thus the basis for the USPs in the project relates to (i) localities that are not yet fully specified, (ii) beneficiaries who are not yet self-identified, and (iii) participatory choices of specific activities to be undertaken during the project implementation, including climate-resilient agricultural technologies, which additional climate-resilient value chains will be selected, and whether participants will participate in IGAs and market access linkages. During the additional screening of the USPs, as set out in the Environmental Management Plan (Annex 7), a gender lens will be applied in a cross-cutting fashion to all USPs screened, and the GAP updated accordingly if needed.

[293] Corresponds with AF indicator 7.2. 'No. of targeted development strategies with incorporated climate change priorities enforced'

Summary of how the project will address some of the key recommendations of the Gender Assessment

All of the key recommendations of the Gender Assessment have been fully integrated into the project activities and project results framework, thus removing the necessity for these to be further specified through additional indicators into the Gender Action Plan. The following list corresponds to the 14 recommendations of the Gender Assessment:

⇒ **Project-specific gender guidance** will be developed, including project-specific gender guidelines and an easy-to-use checklist for gender mainstreaming during implementation, building on relevant lessons learned from IACoV phase I as well as WFP and GoL best practice, and in accordance with the Gender Policy of the AF. This will spell out how the functions and roles expected for different sub-groups of women and men to take on in the context of the project should be implemented to not adversely affect time commitments and to consider mobility restrictions/needs [During inception]

⇒ **Gender-related lessons learned will be gathered and disseminated**, including on gender equality and women's empowerment outcomes through surveys and more qualitative case studies to build evidence. This will capture aspects of increased decision making and autonomy, increased opportunity for livelihoods for women as well as improvements in dietary diversity within the households. A time use survey will either be conducted under the final evaluation of IACoV phase I or planned as a separate follow-up activity to provide evidence on whether phase I project effectively tackled or worsened the disparities in time allocation. Recommendations from that survey will be integrated into phase II implementation. [output 2.3.1]

⇒ **Climate awareness raising and climate adaptation skills will be continued and enhanced** for all groups and targeted skills training provided to expand the climate-resilient livelihood options for all groups, with gender issues integrated into all courses. The production to be promoted will be climate-resilient, as per IACoV phase I, to enhance domestic food security related to increasing agriculture productivity. The work under IACoV phase I to engage women and men equitably on climate adaptation measures will be continued, such as having flexible hours, having support for childcare, maintaining the independent complaint feedback mechanism, reducing walking distances to the project sites, and encouraging women to assume decision making roles. [outputs 2.1.1, 2.2.1, 3.1.1, 3.1.2, 3.1.3]

⇒ **Targeted, localized, and accessible last mile climate services for all groups will be ensured**: Building on the findings of the community perceptions and indigenous knowledge study conducted under IACoV phase I, the project will ensure that the last mile climate services to be developed are suitably localized, through enhanced accuracy of the forecast and development of agro-met advisories, and are targeted for all sub-groups. This will include those who are not able or willing to access LMCS on their phones, such as older women and men, those who do not have smart phones, and those who do and would trust these services more, such as male youth. The corps of LMCS disseminators to be supported by phase II should include individuals and groups from all socio-economic, sex, and age groups. [output 1.3.1]

⇒ **The nutrition interventions will be continued and strengthened** and expanded into the new project areas, with clear links made between climate change and nutrition. More male engagement on nutrition and dietary diversity programming will be promoted, as, in many households, women migrate to find work leaving men in charge of childcare. Herders will also be included in the nutrition programming. Continuous training will be provided to the nutrition clubs versus the once-off training under phase I to ensure that members can effectively manage their activities and adapt to new challenges where clubs exist. The project will offer regular advisory services to help clubs with legal, financial, and operational issues. Given the successes in the functionality of the nutrition clubs in areas where they are established, the project will support replication of the clubs in the communities where they do not exist. [output 3.1.2]

⇒ **A package of interventions specifically targeted at youth will be implemented**: opportunities have been identified and will be further refined during implementation to engage female and male youth in IACoV phase II, including individual and entrepreneurial climate adaptation activities that are attractive to the youth, as well as providing leadership opportunities for them. This package will include increased and iterative awareness raising on climate change and its effects; understanding of and ability to participate in anticipatory action and last mile climate services, including digitalised services; sensitisation on nutrition and GBV; enhanced adaptation capabilities and associated IGAs of interest to youth such as vegetable production through keyhole gardening, organic compost making, value-addition to invader species gathered e.g. rosehip, etc.; market access facilitated for selected value chains; and business development support and access to credit for entrepreneurial activities. [across components, including outputs 1.3.1, 2.1.1, 3.1.1, 3.1.2, 3.1.3]

⇒ **A package of interventions specifically targeted at herders has been included,** with increased and iterative awareness raising on climate change and its effects; sensitisation on nutrition and GBV; enhanced adaptation capabilities for good rangeland management (together with the owners of the livestock herds), including fire management and firefighting, wetland protection, rotational grazing; specific IGAs such as briquette making from manure and beekeeping, linked to market access; climate-resilient livestock shelters; and understanding of and ability to participate in anticipatory action and last mile climate services. Individual herders will be included in the climate champions group that the project intends to nurture. across components, including outputs 1.3.1, 2.1.1, 3.1.1, 3.1.2, 3.1.3]

⇒ **Ongoing women's and vulnerable gender sub-groups empowerment and leadership in project structures will be supported,** building on and strengthening the approach of IACoV phase I to overcome existing constraints that hinder women and vulnerable gender sub-groups such as female and male youth, PwDs and PLHIV from assuming project leadership roles. This will include removing barriers related to health status and ensuring equal opportunities for vulnerable gender sub-groups in leadership positions. The project will promote an inclusive and supportive environment that enables marginalized socio-economic groups to take on leadership positions while addressing any challenges they may face. [throughout components]

⇒ **Equitable access to resources for women and vulnerable gender sub-groups will be promoted through project activities,** building on the approach adopted by IACoV phase I. The project will continue and expand efforts to specifically reach women and vulnerable gender sub-groups through targeted outreach activities, including identifying and addressing barriers they face in accessing resources. The project will offer training and capacity-building opportunities for women and vulnerable groups to enhance their skills, knowledge, and confidence in accessing and utilizing available resources. [outputs 1.2.1, 1.2.2, 1.3.1, 2.1.1, 2.2.1, 3.1.1, 3.1.2, 3.1.3]

⇒ **The project will continue and enhance sensitisation on GBV**: Ongoing sensitisation is needed to counter the deep-seated social and cultural norms that drive and normalize GBV, which has been exacerbated by the increased food insecurity and poverty resulting from climatic changes. The project will build on and strengthen the social and behaviour change communication (SBCC) on GBV that was supported during phase I, working with key partners including the Ministry of Gender at the district level, the Police CGPU, and NGOs active in the field, and involving all community age and sex groups in this to advocate for and support the implementation of policies and practices that reinforce SBCC efforts and provide a supportive environment for addressing GBV. The project will also identify the referral pathways and build the capabilities of officers (government and WFP) to sensitize the community on the GBV referral pathways. [integrated throughout, by means of the CC-FS-GEN-NUT nexus; specific outputs with intense focus include outputs 1.2.1, 1.2.2, 1.3.1, 2.1.1, 2.2.1, 3.1.1, 3.1.2]

⇒ **Access to IGAs targeting different groups, with facilitated market access, will be enhanced**, **by** deepening and expanding the activities supporting IGAs for vulnerable and economically disempowered groups conducted in phase I. This will include women, female and male youth, and male herders of all ages. As unemployment rates are high for people living with HIV (PLHIV) and PwD, the project will strive to support those groups through targeting and IGA support. All capacity development to promote IGAs for different groups will strive to link groups and individuals to expanded market opportunities that would provide dividends to women and men of different ages, for enhanced sustainability. [output 3.1.3]

⇒ **The project will enhance access to financial services and business development**, by strengthening informal groups and facilitating linkages with formal service providers in the project areas. This will include increasing access to credit, which is one of the major challenges that women entrepreneurs experience. Informal sources of finance that are very important for women in rural areas will be strengthened, such as the local community and informal savings clubs; access for youths to integrated financial services packages such as those offered by EcoNet and Lesotho National Development Corporation (LNDC) will be facilitated. [output 3.1.3]

⇒ **Phase II will build on and strengthen the community feedback mechanisms** employed under phase I, specifically by engaging an independent service provider that is not engaged in the implementation processes of the project and can ensure a neutral closure of the complaints raised by the stakeholders. [Grievance mechanism]

⇒ **The project will create/support gender and climate action groups at district and national level**: District gender working groups for climate action to encourage inter-sectoral collaboration and participatory approaches will be created, with a clear mandate and areas for decision-making, to promote structural and ongoing gender/climate action beyond the project. These district-level groups should include NGOs and any relevant private sector organisations operating in the area. These will be linked to an existing structure at national level – for example, the National Climate Change Committee – to promote two-directional lessons learning and policy advocacy, and provide initial capacity development support, to be taken over by the Ministry of Gender which will be co-opted onto the structures, for ongoing sustainability. [output 2.1.1]

Additionally, the project will also **target children in enhanced training on CC-FS-GEN-NUT linked with WASH**, given that, especially in the remote areas of Thana Tseka, like Setoetoe and surrounding villages, knowledge barriers in this regard are substantial. The project can make a sustainable investment if children are included in the enhanced educational and awareness raising activities. Existing WASH clubs in some schools will provide a good entry point to integrate climate change and interlinkages with health, nutrition, and gender issues; in areas where such platforms do not exist, collaboration can be made with NGOs and government sectors and capacity building can be implemented for teachers, parents, and community leaders to support these initiatives. Given that the project will train teachers and non-formal institutions on the CC-FS-GEN-NUT nexus and support a roadshow across the country on this under Component 2, the related activities will be implemented in a fully integrated way across the components. The project could also leverage on the work carried out by the Lesotho National Olympic Committee for HIV education, through interactive and engaging programmes that use sports, games, or arts to teach children about climate change, nutrition, hygiene, and other critical topics. These programmes can make complex issues more accessible and memorable for children.

Governance arrangements for gender mainstreaming

As stated in section III.A.1 of the proposal, WFP will provide the necessary support to the PMU and implementing partners to ensure that gender, protection, and accountability to beneficiaries are maintained throughout the project lifecycle. This will be facilitated by the WFP Gender and Protection (G&P) teams and GoL entities, led by the Gender and Nutrition Focal Point of the WFP Lesotho CO and the Gender Focal Points of the different executing entities; with support from the WFP Regional Bureau Johannesburg (RBJ) Gender Advisor. The Gender and Nutrition focal points of the WFP CO and GoL entities will coordinate gender mainstreaming for IACoV II during planning, implementation, M&E and reporting; as well as into the complaints and feedback mechanisms. The WFP G&P team will (i) attend the project's inception and work planning meetings to ensure that the gender and protection lens is applied in all project processes from the outset; (ii) provide mainstreaming support in annual/quarterly review meetings, operational plans, reviewing of annual/ quarterly reports; and (iii) facilitate workshops and training, with their operational costs being covered by existing WFP funds and workshop funds within the project budget. The WFP G&P Team salaries at the regional level will be covered by other project budgets of the WFP RBJ, while the salary of the WFP Lesotho CO G&P expert, who will provide a gender oversight role, will be covered on a cost-sharing basis with the project. In addition, the project will commission a gender expert for regular short-term consultancy services, under the supervision of the WFP Lesotho CO G&P focal point, to inter alia (i) provide gender and protection awareness training and inputs to DoA extension workers and executing partners to strengthen capacities of key project staff, who will in turn sensitize and train community members; (ii) develop project-tailored gender SOPs so the PMU/ executing partners can ensure appropriate standards across project activities; and (iii) facilitate any additional gender-related workshops and training where this is identified as necessary. To further strengthen gender mainstreaming, the recruitment process for certain PMU staff – the M&E Officer and the Project Technical Specialist (PTS) – will specify that they have experience in this regard. Oversight/support roles and responsibilities for gender mainstreaming will be specified in the relevant staff ToRs. The WFP Regional Gender Advisor will support the staff recruitment process to ensure the ToRs adequately reflect these roles.

Annex 7: Environmental and social screening and Environmental and Social Management Plan

This annex contains the following sections:

1. Summary description of the project

2. Screening and Categorization of the project

3. Environmental and Social Management and Monitoring Plan

1. Summary description of the project

The proposed project, 'Improving adaptive capacity of vulnerable and food-insecure populations in Lesotho Phase II' (IACoV-2), will implement an integrated set of interventions to address climate risks such as increased temperatures, erratic rainfall, drought and cold spells, and land degradation, Lesotho's biggest climate change-related environmental problem. These are constraining agricultural productivity and food and nutrition security amongst climate-vulnerable smallholder farmers. Through landscape-based approaches and risk layering, the project will deepen and scale up activities in the three southern drought-prone districts of Mafeteng, Mohale's Hoek, and Quthing, and will scale out project operations into the mountainous district of Thaba Tseka, which also has high climate vulnerability and low food and nutrition security. Community members participated in the focus group discussions held in June 2024 (see Annex 5) and on 13 and 14 August 2024, the districts were visited by four teams for the ESS site visits. The teams held interviews with community members using a mix of open-ended and structured questions, based on the ESS questions in the WFP tool. Community members then guided the ESS team on a transect walk through their area and communal land to showcase natural resources that they possess and manage together, after which detailed ESS screening was compiled.

DISTRICT	DATES	Responsible Officers
Thaba-Tseka	13-14.08.24	Matoka, Makganthe, Sandra, and Matsepiso
Mafeteng	14.08.24	Nthomeng, Matsepe
Mohale's Hoek	13.08.24	Ntebaleng, Lekeli, Oliphant

Building on the achievements of phase I, the project will further strengthen institutional capacity and build systems to generate climate information and reduce climate risks through more accurate sub-seasonal to seasonal forecasting and impact-based forecasting that enables scaled out anticipatory action and enhanced last mile climate services; deepen gender-responsive awareness raising and communication on climate change impacts and adaptation actions; and scale up and out local resilience and adaptation actions for robust asset creation, income diversification, entrepreneurial development and stronger market linkages, enabled by a community-based planning process, for increased adaptive capacity and household resilience. Component 1 of the project entails enhancing the accuracy of the sub-seasonal to seasonal (S2S) forecasting, developing the impact-based forecasting (IBF) system, scaling out the anticipatory action (AA) system, and facilitating linkages to last mile climate services. Component 2 entails further developing and scaling out the National Climate Change Communication Strategy (NCCCS) and associated awareness raising activities, scaling out climate change toolkits in formal and non-formal institutions, and empowering women, youth, herders, etc. to become climate champions. Component 3 entails scaling out local adaptation planning through the community-based planning process (CBPP), regenerating and rehabilitating wetlands and rangelands, enhancing access to climate resilient agricultural technologies such as conservation agriculture, keyhole gardens, and climate-resilient varieties of crops, vegetables and short-cycle livestock, supported by good agricultural practices (GAPs) and enhanced extension support for environmentally and climate smart approaches, sensitising stakeholders on gender-based violence (GBV) and climate risk management through the CC-FS-GEN-NUT nexus, and promoting climate-resilient value chains and marketing linkages. These are intrinsically risk-averse with respect to social and environmental impacts.

The project contains partial unidentified sub-projects (USPs)[294] under Component 3. The basis for the inclusion of USPs in the project relates to (i) localities that are not yet fully specified; (ii) beneficiaries for whom the targeting criteria has not yet been fully defined; and (iii) participatory choices of specific activities to be undertaken during project implementation, facilitated through the community-based participatory planning (CBPP) process. Regarding localities, the detailed project planning for phase II has resulted in the selection of 18 community councils in the four districts, based upon the climate risk analysis and socio-economic criteria as detailed on pages 10-14; however, the specific localities for discrete community-level activities such as land restoration have not yet been selected. This is dependent upon the CBPP process that will take place at a central location within a community council, as mandated by the GoL.

Regarding beneficiaries, the targeting at a broader scale is clear and has been set out on pages 14-15. Within the four districts, the target group for the concrete adaptation activities is poor and climate-vulnerable smallholder farmers across age and sex groups with high levels of vulnerability to current and projected climate risks. The project will target at least 60 percent females, in recognition of the feminization of agriculture in Lesotho, and the differentiated needs and increased vulnerabilities of rural women. The project will further target rural female and male youth living in areas with high levels of climate risk and low employment opportunities; the youth target will be 40 percent of project beneficiaries. The particularly vulnerable groups identified for inclusion in the project are female-headed households, herders, poorer households, people living with disabilities (PwD), people living with HIV/AIDS, and young mothers. Within this target group, the targeting criteria will still be more clearly defined in response to the updated climate risk information presented during the CBPP process, as well as the adaptation knowledge developed in phase I which is to be shared systematically with beneficiaries during the CBPP process.

, The presence of USPs also relates to the fact that~~because~~ community members are yet to choose the adaptation solutions they will implement from the adaptation menu of options, and thus the exact locations of the community assets to be developed, through the CBPP adaptation planning process. As was implemented during the AF-approved phase I of IACoV, participatory choices of specific concrete adaptation activities to be undertaken during project implementation will be facilitated through the CBPP process, in the early stages of implementation. Under the WFP standard approach of CBPP, which has been adopted by the GoL not only for phase I but also more broadly across other development activities, the beneficiaries in this project will make informed decisions about whether and how to participate in specific activities during the early stages of project implementation. In the interests of sound and sustainable development, as well as avoiding maladaptation, these need to be informed decisions – in other words, based on sensitisation and community-based planning activities that will be carried out under the project. The project has been designed so that there is a logical progression of project activities to enable informed participation and decision making by community members.

An adaptation menu of options has been pre-identified in consultation with communities. This set of options has been pre-screened during design phase (see screening checklist filled-in below) and activities are expected to be categorized low to moderate risk. Specific community adaptation plans developed for each project site will be screened before their approval to assess the actual risk category of each activity, taking into consideration the location and the social and environmental context. Should a moderate or high risk be identified, the project will take adequate measures to address and mitigate the risk.

Potential adaptation activities for Component 3, as well as excluded activities, are listed in Table A7.1.

Table A7.1 Potential adaptation activities and excluded activities

Category	Potential activities	Excluded activities
Restoration and rehabilitation of degraded rangeland and wetlands in Mafeteng, Mohale's Hoek, Quthing, and Thaba Tseka	Hillside terraces Stone bunds Diversion weirs Gully reclamation (physical and biological structures) Rangeland rehabilitation, brush control and reseeding, fire breaks Afforestation	– Introduction of alien crop species/ invasive species – Hillside terraces at a scale above the smallholder farmer's group level – Land expropriation – Soil excavation without good land management practices

[294] The basis for categorization of the USPs as partial is the updated AF USP Guidance Document for IEs on USPs, as well as a discussion held with the AF Secretariat on 23/01/2025.

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	Footpaths Infiltration dishes/pits, eyebrow and half-moon basins, gully reshaping Marginal land reseeding	– Burning of grass for regeneration purposes
Homestead farming	Support to household vegetable gardens Promotion of Indigenous vegetables Promotion of Indigenous medicinal plants Test and improve farmers' methods for plant protection – bio-pesticides on-farm production Diversified crop rotation, crop combination, etc.	– Introduction of agrochemicals – Introduction of GMOs – Introduction of alien crop species/ invasive species – Large-scale monocultures (>2ha of contiguous land with 1 culture) – No activity in conservation areas and/or natural reserves
Drought-resistant and heat-tolerant crops and climate-smart agriculture	Promotion of drought-resistant and heat-tolerant sorghum, beans, and olives in the project districts Agroforestry, crop rotation, intercropping Compost production, mulching, and crop residue management Promote fodder species to increase soil fertility Promote integrated pest management (IPM) Test and improve farmers' own methods for plant protection – bio-pesticides Promote conservation agriculture (CA)	– Introduction of alien crop species/ invasive species – Introduction of agrochemicals – Introduction of GMOs – Large-scale monocultures (>2ha of contiguous land with 1 culture) – No activity in conservation areas and/or natural reserves
Climate-resilient small stock	Improved Indigenous chickens Pigs Dairy goats Test and improve farmers' own methods for livestock disease/GHG emission prevention Access to approved veterinary services Small-scale processing and pasteurisation (including goat milk)	– Provision of harmful pesticides – Introduction of GMOs
High-value tree production and bee-keeping - promotion and improvement of this	A feasibility study has been carried out on high-value trees but needs to be updated to include agroforestry and afforestation and identify climate-resilient varieties suitable for locations Support and market links will be provided based on study Promotion of commercial beekeeping using natural methods	– Introduction of invasive species – Harmful substances used in apiculture
Community water development for small-scale irrigation and domestic use	Household water harvesting (roof) Family drip irrigation system Low-cost micro ponds for livestock/ Animal drinking points Rehabilitate and protect wells Protect water resources e.g. from livestock Sand dams for irrigation and potable use	– Dams in rivers diverting >10% of surface flow OR >100m3 per day – Rehabilitation or construction of dams with height >2m – Community water ponds for irrigation/livestock use with volume >1,000m3 – Excavation of soil without good land management practices
Climate-resilient infrastructure: access roads, PH structures, and structures for aggregation	Access roads to villages to facilitate market access PH structures using IK Small-scale storage structures for aggregation	– Large storage facilities (>100m3 OR surface >25m2) – Large-scale production units (>100t per year) – Road construction without supervision by the relevant Department
Food preservation and processing	Tarpaulins, grain stores, solar-powered dryers, small roller mills etc.	– Large storage facilities (>100m3 OR surface <25m2) – Large-scale production units (>100t per year)
Fuel-efficient stoves and Wonder Boxes	Provide fuel-efficient stoves and Wonder Boxes and training on their manufacture (on-farm) and use	– Inefficient wood or coal stoves
Fish farming	Support small-scale fish farming Extension service to farmers on the construction of the ponds, variety of fish (trout/tilapia etc), feeds, market, and the disposal of water from the ponds	– Community water ponds larger than 10mX10m, with a depth of 3m
General excluded activities: Any activity involving child labour; Any activity that will lead to involuntary resettlement		

Technical specifications of the proposed sand dams

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Sand dams are a powerful near-term intercession for restoring hydraulic conditions in Lesotho's degraded watersheds.[295] They are located in ephemeral stream beds at an optimal location where the stone masonry wall will retain the most sand, for the least height of wall. In Lesotho they can be built on solid base rock which is found along the bottom of most water courses and provides a solid foundation. Sand dams located at optimal points retain a huge volume of sand, which acts as a wick over a significant area for ground water recharge and retention, with the sand holding 30% of volume as water. Surface tension and capillary movement of water to below ground aquifers follows. The sand filters the water and reduces evaporative losses. The sand dams are constructed using sand, stones, rocks and boulders, and a modest amount of Portland cement. No steel reinforcing is necessary. Scour on the side walls is prevented by a line or stack of stone filled gabions, which are also inexpensive. Dams can also be built in a gorge with solid rock on each side, avoiding the need for gabions. Summer flood events fill the reservoir with coarse sand and gravel. Depending on the location, the sand dam will be 1 or 2 metres wide at the bottom, tapered, and 1 or no more than 2 m high. Weeping tile is laid on the bed of the stream above the dam wall during construction, and feeds a manifold with multiple orifices, which delivers water to a collection tank below or in some cases upstream of the dam wall. PCV pipes (non-reactive to hot and cold temperatures, no rusting/oxidation) are installed to take water into the collection box, while the geotextile material used also purifies the water, removing the need for any chemicals. The tank does not exceed 1.5m high and about 2m wide. A submersible pump is located in the collection tank; this would be solar powered. Bethel Business and Community Development Centre, the partner for building sand dams under phase I, began work on sand dams 30 years ago and has recently constructed eight sand dams in various locations in Lesotho; it thus has significant localized expertise.

Figure. A7.1: Sand dam built in 2024 at Waterfall in Lesotho, with solar pump

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2. Screening and Categorization of the project

The project was screened against the 15 Environmental and Social Principles of the Adaptation Fund, using the screening tool presented below. The screening tool consists of a list of around 20 general level 1 questions (indicated with two digits, e.g. 3.1) and around 60 detailed level 2 questions (indicated with three digits, e.g. 3.1.1). They are categorized in nine thematic areas that correspond with the nine Environmental and Social Standards of WFP. The level 1 questions need to be answered first and they need to be answered ALL. There is a simplified version of the level 1 questions (Annex 2) that can be used during community consultations. If a level 1 question is answered with a 'yes', it leads to more detailed questions of level 2. All level 2 questions under a level 1 question that triggered a 'yes' need to be answered. This can be done after community consultation. If a level 1 question is answered with a 'no', then the corresponding level 2 questions do not need to be answered. An explanatory comment should be added to all questions that were answered with a 'no' or 'yes'.

Answers to the detailed Level 2 questions result in one of three degrees of concern. If any Level 2 question is answered with a 'yes', the indicated degree of concern will determine the degree of concern for the whole activity. This means that if a single question indicates a high degree of concern, the activity is classified as an activity of high concern and appropriate measures must be taken. If no question is answered with a high degree of concern, but at least one medium-level concern is raised, then the activity is a medium-concern activity. If no Level 1 or Level 2 questions are answered with a 'yes', then the activity is of low concern and no further action is required. A level 1 question may be answered with a 'yes' and all associated level 2 questions are answered 'no' as they are more detailed and specific questions of the same issue. If all the level 2 questions are answered with 'no', then this area will be of low concern, even if the level 1 questions were answered with a 'yes'. There is no pre-determined degree of concern for level 1 questions.

If a potential impact is not covered by any of the L1 or L2 questions, it can be added in the empty box at the end of each of the nine sections.

Based on the screening, the risk level of this project is identified as Category B, primarily because Component 3 of the project includes USPs that are not fully defined yet. Prior to implementation of the relevant activities, environmental and social risk screening of the USPs will be conducted to ensure the overall project risk category B is not exceeded and applicable ESS instruments to mitigate/minimise/control the risks are in place. Nevertheless, all potential activities under Component 3 are small in scale (managed at household level or community level) and activities such as restoration of wetlands and rangelands, use of CSA technologies such as keyhole gardening and conservation agriculture are likely to enhance environmental and social conditions; any potential negative impacts are very limited and can be readily mitigated.

[295] Degraded watershed conditions are characterized by valley cutting, straightening of water courses, increase in stream horsepower, flash flooding, intermittency of flow and falling water tables. Stark economic and environmental collapse is the result. Healthy watersheds in contrast indicate valley filling, meandering water courses, slow water, perennial water flow and high water tables, which translates into natural abundance. Sand dams help to bring about these healthy watershed conditions.

1. Compliance with the law				
1.1 Is there a risk that the activity would not comply with an applicable domestic or international law?			No	WFP, executing entities and partners will implement project activities in line with applicable legal frameworks, policies and international conventions and quality standards.[296] Examples of legislation that the project may have to comply with include the Environment Act 2018, Act 10 2018, Water Act 2008, Forestry Act, 1998 Act 17 of 1998, Agricultural Marketing Act, Act 26 of 1967, and Land Act, Act 10 of 2010, Labour Act, Act 3 of 2024, Disaster Management Act, Act 2 of 1997 and Public Procurement Regulations, 2007; and Legal Notice 1 of 2007 where expenditure through government agencies or executing entities. Component 3 activities may require compliance with environmental impact regulations. Compliance will be achieved during the process to screen USPs by submitting a scoping report/Project Brief to the MEF, after which additional guidance on applicable mitigation measures may be obtained and will be complied with. Construction permits and approval of building plans are required for structures larger than 500m2 – however, no project structure will approach anywhere near that size. Registration of boreholes, water points and water use licenses will be complied with through collaboration with the Department of Water.
	1.1.1 Is there a risk that the activity would not comply with an applicable international law?	High	No	
	1.1.2 Is there a risk that the activity would not comply with an applicable national or local law?	High	No	

2. Access and Equity				
2.1 Could the activity lead to changes in local tenure arrangements for existing resources or resources created by the activity?			No	There will be no changes to local tenure arrangements. In activities that require temporary access restrictions such as landscape rehabilitation, these activities will be conducted following land management regulations. The Phase II project interventions will not include access of new land parcels or amendment of the land parcels' prior zoned land use. The project will promote access and equity in project interventions as much as possible, including through Community Feedback Mechanism (CFM) awareness sessions prior to implementation of activities. Participatory assessment and targeting will be carried out to ensure full and equitable participation of and equal benefits to men and women and vulnerable and marginalized groups. The selection criteria for activities where benefits are directed to specific individuals will be undertaken through the support of WFP's Gender, Protection and Inclusion Officer, M&E officer as well as WFP's VAM unit whereby selection methodologies will be explained and reviewed so that exclusion errors are mitigated.
	2.1.1 Could the activity lead to changes in tenure arrangements that potentially could put groups or individuals at a disadvantage or could lead to disagreements and conflicts?	High	No	
2.2 Could the activity create or exacerbate intra- or inter-community conflicts?			No	Most settlements in rural Lesotho rely on governance systems that are coordinated through traditional leadership. This serves as an additional and culturally respected form of conflict resolution to supplement the policing forums. The project activities will be implemented together with duty of care measures as well as SBCC sensitisation to facilitate delivery of enhanced climate adaptive capacity, knowledge sharing, and climate services. Project activities are expected to result in a reduction in conflict through improved NRM – for example, improved fodder production on marginal fields will result in affordable and increased local access to animal feed and lower the risks of fighting over fodder by livestock owners .

[296] WFP, as an autonomous joint subsidiary programme of the United Nations and the Food and Agriculture Organization of the UN, operates under a particular legal framework, enjoying privileges and immunities under Article 105 of the Charter of the United Nations as well as the Convention on the Privileges and Immunities of the United Nations and the Convention on the Privileges and Immunities of Specialized Agencies. Under these instruments, WFP is granted immunity from every form of legal process of its member states in order to ensure that WFP can carry out its mandate globally with independence and in accordance with the humanitarian principles, including operational independence, impartiality, and neutrality. WFP also enjoys, among others, privileges and immunities in respect of taxation, financial transactions, and import and export controls. However, WFP's privileges and immunities do not generally extend to WFP's non-UN implementing partners and vendors. Accordingly, such entities are required to comply with all laws, ordinances, rules, and regulations bearing upon the performance of obligations under agreements with WFP. In Lesotho, WFP is only exempted from complying with the Value Added Tax Act, 2001 Act 9 of 2001; Income Tax Order, 1993 Ordinance 9 of 1993 etc. However, the EEs and cooperating partners (CPs) are required by WFP partner identification and due diligence procedures to comply with applicable regulations. As such the project will comply with all national laws.

	2.2.1 Could activities open up existing or create new minor conflicts or disagreements within or between groupings or communities?	Low	No	
	2.2.2 Could activities lead to opening up of existing or creating new conflicts or disagreements within or between groupings or communities which potentially could become entrenched, violent, or spread to additional groups or communities?	Low	No	
	2.2.3 Could the activity bring unequal economic benefits to a limited subset of the target group?	Low	No	
	2.2.4 Could the activity lead to increased un-employment that would not be absorbed by other sectors or activities?	Low	No	The project's site based activities will result in a net increase in economic opportunities and employment, as increased levels of climate-resilient production will result in more surplus that can be used to develop sustainable micro businesses based on the IGAs supported by the range of project activities. Policy development strategies will not impact on or lead to unemployment.
2.3 Could the target beneficiaries or stakeholders be dissatisfied due to limited consultation during activity design or implementation (including due to inadequate Complaints and Feedback Mechanisms)?		Low	No	Project design has been based on extensive and disaggregated community consultations as described in Annex 5, with project activities designed to specifically respond to the needs and aspirations of the targeted communities and groups. The selection of concrete adaptation measures under Component 3 will be undertaken with communities through the highly-participatory CBPP procedures. Before project implementation, CFM awareness sessions will be conducted in all project sites. During these awareness sessions, stakeholders will also be made aware of the Adaptation Fund's grievance management system for escalating issues they view as unsatisfactorily resolved. All CFM protocols and channels will be workshopped in the project sites. These channels include the use of a toll-free phone number where services are available 24/7, and anonymous reporting in Sesotho and English. The CFM cases are managed or collected by an independent entity to WFP and the GoL and are allocated to respective units for resolution. Any serious cases such as OHS and PSEA incidents are reported directly to the OIGI office. It will be mandatory to locate grievance boxes at community sites for all service and site-based activities. Community level conflict resolution committees will be encouraged.
	2.3.1 Could the activity lead to dissatisfaction or negative impacts due to a lack of beneficiary or other stakeholder participation in planning, design, implementation, or general decision-making?	Low	No	Any additional consultations that are needed prior to implementation will be identified and conducted during the inception period or soon after. This could include, for example, more detailed local-level targeting and prioritisation based on food security vulnerability assessments. Further stakeholder mapping exercises will be undertaken during project implementation such as to identify specific schools) and determine IBF roles and responsibilities. The project budget includes resources allocated for meetings and workshops under many of the outputs, to facilitate this process.
	2.3.2 Is there a risk that not all relevant stakeholders, and especially marginalised or vulnerable groups, have been identified and consulted or that they have been exposed to internal or external pressure or coercion or not able to comprehend the consultations?	Mediu m	No	The stakeholder engagement includes sectoral government ministries, departments, and entities. In addition, local community consultations took place in July and included focus groups discussions. Moreover, the E&S Screening included participation of some community members during August 2024.
	2.3.3 Could there be negative impacts due to inadequate Complaints and Feedback Mechanisms during project implementation?	Mediu m	No	

3. Marginalized and Vulnerable Groups				
3.1 Could the activity impose disproportionate adverse impacts on marginalized and vulnerable groups?			No	Project activities will incorporate the needs of marginalised groups such as people with disabilities, youth and rural women, supported by the WFP Gender, Protection and Inclusion officer and guided by the Ministry of Gender and Youth's policies and guidelines. The project will apply gender responsive and consultative approaches as well as the CFM process. Contractors and service providers will use the grievance boxes for the duration of their presence in the communities.
	3.1.1 Is there a likelihood that the activity would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	Medium	No	

	3.1.2 Could the activity potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	Low	No	
	3.1.3 Could the activity aggravate the situation of vulnerable, marginalised, or otherwise disadvantaged individuals or groups?	Low	No	
3.2 Could the activity lead to an influx of a temporary or permanent alien workforce?		Medium	No	
	3.2.1 Could the activity lead to influx of a temporary or permanent alien workforce of relatively small size in a relatively isolated or culturally sensitive community?	Medium	No	
	3.2.2 Could the activity lead to influx of a relatively large temporary or permanent major alien workforce (>10% of existing community) or a smaller group which could be expected to have important cultural, health, or socio-economic impact on a local community?	High	No	

4. Human Rights				
4.1. Could the activity fail to respect human rights?			No	The project will promote human rights-based approaches in all its processes and consultations. Comprehensive awareness raising sessions on the CFM and its processes will ensure that communities' and individuals are aware of how to report incidents, and encouraged to do so, should any situation arise in which they feel project implementation may have infringed upon their human rights whether intentional or unintentionally. Lesotho ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa on 7 March 1984. The WFP AAP, Gender and Protection policies and frameworks as well as established implementation approaches will be applied and promoted in the project to support human rights and gender equality in all project activities. These processes by WFP align with the provisions of the Protocol. The Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms is not applicable to Lesotho as this is a European Union Protocol. The Convention against Discrimination in Education is applicable to Lesotho as a former Territory of the United Kingdom of Great Britain and Northen Ireland. Relevance may be associated with the school-based, teacher and learner trainings in Component 2 of the project. Lesotho is a member of the Southern African Development Community which all member states have ratified or ascended to the Protocol on Education and Training, which ascribes to equitable, free and fair education.[297] Lesotho is member to the International Labour Originations and has ascended to other relevant ILO protocols and conventions such as those that address child labour, health and safety etc.; however, the country has not ratified the Employment Policy Convention. The country's constitution as well as the existence of the Labour Act addresses the Philadelphia Declaration and the Employment Policy Convention provisions such as the right to employment.
	4.1.1 Could the activity lead to violation of fundamental human rights as defined by international, national or local law?	High	No	
	4.1.2 Could the activity of partners, contractors, or suppliers, lead to violation of fundamental human rights as defined by international, national or local law?	High		

5. Gender Equality and Women's Empowerment

[297] https://www.sadc.int/sites/default/files/2021-08/Protocol_on_Education__Training1997.pdf

5.1 Could the activity lead to gender-based inequality, discrimination, exclusion, unwanted workload, or violence?			No	Project activities are expected to lead to a reduction in gender inequalities. Consultations carried out with the participation of WFP and GoL gender experts have ensured that project activities effectively respond to the unique needs of women and girls, men and boys, and promote equal opportunities to participate, and receive comparable social and economic benefits. The project will target 60% female and 40% youth beneficiaries, ensuring that these groups benefits equitably from project activities. The project includes a package of interventions to specifically target herders, ensuring that these often disadvantaged individuals benefit equitably from the project. Considering community asset creation through CBT, women and men agree on the work norms established for the community asset creation activities, which must conform to the GoL's work norms for public works sites. These norms, set by government ministries, specify the workload expected from each participant. There have been no reports of dissatisfaction among the participating groups in phase I of the project, and none are expected during phase II. However, to preclude any issues arising, community members can report any negative feedback through the CFM channels, which are addressed within 24 hours. Additionally, community-led CFM channels resolve issues immediately upon reporting. The existing societal gender issues that may undermine progress made by the project include child marriages and gender-based violence; the project will specifically contribute to reducing these issues through the comprehensive process of GBV sensitisation that will be implemented in each project site, as well as through the project's adoption of the CC-FS-GEN-NUT nexus as a central organising concept. The project has developed a Gender Action Plan (GAP), based on a detailed Gender Assessment (Annex 6). The project activities directly respond to all 14 recommendations of the GA, The GAP indicators will be monitored and reported on, and corrective action taken without delay. All gender-related incidents reported via the CFM will be resolved promptly.
	5.1.1 Could the activity create or amplify conditions for gender-based inequalities?	High	No	The project aims to mainstream gender issues into the implementation modality which include implementation and tracking of the developed GAP and adaptation of a gender-based approaches to climate change, nutrition, gender and food security nexus.
	5.1.2 Could the activity lead to gender-based violence?	Medium	No	While there are societal trends that contribute to GBV in Lesotho, no substantive link between GBV and specific project activities, including CBT activities, has been found during implementation of phase I. The project will implement recurring sensitisation activities on GBV, involving both women and men, of all ages, across all project sites. This approach has assisted in the past to reduce the levels of GBV.
	5.1.3 Could the activity lead to gender inequities in who makes decisions?	Medium	No	
	5.1.4 Could the activity lead to increased unpaid work for women and girls?	Medium	No	

6. Core Labour Rights			
6.1 Could the activity fail to respect core labour rights?		No	The project will observe international and national labour rights and principles. It will not use the labour of children under 15 years, which is the minimum age of employment according to Lesotho's Children Protection and Welfare Act 2011[298]. All service providers appointed by WFP are required to comply with the Code of Conduct that incorporates prevention of sexual abuse and harassment. The food for assets activities will provide personal protective equipment to participants of labour-intensive works programme. The selection of CBT beneficiaries follows a participatory process endorsed through community engagement. As this programme is not an employment process, it does not include migration of labour workforce, and a labour management plan will not be required.

[298] https://lesotholii.org/akn/ls/act/2011/7/eng@2011-03-31#part_XXIV__sec_230

	6.1.1 Does the activity involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	High	No	
	6.1.2 Could the activity, or that of partners, contractors, or suppliers, involve use of child (<14y) or forced labour?	High	No	

7. Indigenous Peoples				
7.1 Does the activity involve indigenous peoples or could it affect indigenous peoples?			No	There are no indigenous peoples in Lesotho who are self-identified or otherwise.
	7.1.1 Could the activity negatively affect indigenous peoples, culturally or otherwise, without their specific Free, Prior, Informed, Consent (FPIC)?	High	No	

8. Involuntary Resettlement				
8.1. Could the activity lead to resettlement?			No	Project activities will not cause resettlement, as all land-based activities will be implemented within pre-existing and currently allocated land uses. Communal activities will be executed under the supervision of district and local government officers who have the responsibility of upholding land use rights. Activities such as the construction of sand dams with low walls and micro ponds are designed so that water does not flow towards houses and fields under cultivation, eliminating the need – or any risk – for relocation. The infrastructure design for these small-scale structures ensures that should there be any damage to a retaining wall during a flood event, this will not lead to destruction of riverbanks. Where land is demarcated for rehabilitation, a robust consultation process is followed that includes the community and traditional authorities responsible for land allocation, with endorsement by District authorities.
	8.1.1 Could the activity lead to involuntary economic or physical resettlement of households or individuals?	High	No	

9. Protection of Natural Habitats				
9.1 Could the activity lead to negative impacts on natural habitats?			Yes	Most project activities are not expected to lead to negative impacts on natural habitats, but rather are expected to improve natural habitats through restoration of degraded land, wetlands and rangelands, as well as removal of alien invasive species. However, an unintended effect of these activities could be an increase in unregulated hunting, as discussed below.
	9.1.1 Could there be negative impacts on critical migration corridors of endangered or otherwise or important animal or insect species?	High	No	The four project districts have not been identified as migration corridors for any endangered species. However, there are chances that some project sites may be adjacent to or have presence of habitats for endangered birds of prey such as the bearded vulture. This is not a migratory species and project activities are not expected to interfere with this species or any other endangered and protected species. Nevertheless, screening of USPs and community action plans developed after the CBPP processes will ensure that that no unsuitable project activities are implemented within a certain proximity to any nest sites of this species. Experts from the DoE as well as academic institutions / avian NGOs will be consulted to ensure that there will be no negative impacts. As tackling poisoning risks is considered the primary step to protect this species, the project will include sensitisation on this element during training sessions with farmers and herders.
	9.1.2 Could the activity lead to increase in unregulated or unlicensed collecting, hunting, or fishing?	Medium	Yes	The natural rewilding or repopulation and presence of wildlife (small animals) that has been observed to occur on rehabilitated landscapes of phase I intervention sites may lead to unlicensed and unregulated access and use of biodiversity taking place, in the form of hunting of wildlife and gathering of medicinal plants. However, the project will engage with traditional leaders and the

				district authorities to develop community based sustainable resource management processes and management plans to mitigate any unintended negative impacts from land restoration.
	9.1.3 Could a natural habitat be significantly degraded, fragmented, or more than half of extent destroyed?	Medium	No	
	9.1.4 Could a natural habitat be almost fully destroyed or degraded so that it no longer could function as natural habitat for the original fauna/flora?	High	No	
9.2 Could the activity lead to negative impacts in protected or internationally recognised areas?			No	The existing national protected areas of Lesotho are not found in the districts where IACOV Phase II will take place. Project interventions will not interfere with community protected areas in any form.
	9.2.1 Will any major constructions be located close (<200m) to critical habitats, protected areas, or areas of particular or locally recognised ecological significance?	Medium	No	
	9.2.2 Could the activity lead to negative impacts on protected or internationally recognised areas?	High	No	

10. Conservation of Biological Diversity			
10.1 Could the activity lead to negative impacts on biodiversity or endangered species?		No	Project interventions will not interfere with the community-protected areas in any form. For Component 3 adaptation activities will be undertaken only on lands that were previously used for a similar activity, for example, agriculture will continue to occur on agricultural land. In addition, the project interventions will ensure that buffer zones for springs, wetlands, bogs/mires rivers, and gullies will be observed during project activities to restore ecosystem functions that will lead to enhanced biodiversity. Gully reclamation, land rehabilitation and wetland protection as implemented in the Lesotho IACoV context are not considered to have inherent risks to biodiversity, as these activities are implemented to enhance the functioning of Lesotho's degraded ecosystems and the associated biodiversity. The process of gully reclamation and land rehabilitation is implemented in the following way to minimize disturbance to native species: (i) Utilization of plant species that are native or well-adapted to the local environment to stabilize soil and reduce the impact of erosion on surrounding habitats; (ii) Actively removing or controlling invasive species that threaten the local flora and fauna to allow native species to thrive; and (iii) Promoting practices such as crop rotation, agroforestry, and minimal tillage to reduce the impact on soil health and provide habitat for local wildlife. For wetland rehabilitation, this is achieved through protection of wetlands, which allows the natural ecosystem and indigenous species to regenerate. By preventing encroachment and re-establishing natural water flow, native plant and animal species can recover and thrive, ensuring the long-term sustainability of these vital ecosystems. Sensitive areas such as springs, wetlands, bogs/mires will be carefully delineated and protected these disturbances. Appropriate vegetation restoration using native plant species will be implemented, and soil erosion controlled through sustainable land management techniques. Additionally, regular monitoring and adaptive management will be carried out to ensure that these ecosystems are recovering, and that biodiversity is being effectively supported throughout the rehabilitation process. Indigenous plants will be relocated from intervention sites where they could be negatively impacted. Regarding livestock farming, only locally appropriate indigenous species will be promoted and sensitisation will be conducted prior to any project activities on the dangers of overstocking, to avoid habitat loss due to increased livestock density which could affect wild animal populations. In the new district of Thaba Tseka, there will be a particular emphasis on revitalising and implementing grazing and rangeland management systems, in collaboration with the traditional authorities and local government officials. Sensitisation of herders and livestock owners will be conducted using SBCC methods to make them aware of the importance of avoiding overstocking and overgrazing. In the three southern districts under IACoV phase I, significant strides have already been made in terms of grazing management, including formation of range management associations, the implementation of rotational grazing systems, the creation of fire belts and the establishment of grazing zones to prevent overuse of specific areas. These efforts have contributed

				to improved rangeland health and biodiversity conservation. These successful practices can be replicated in Thaba Tseka, building on the knowledge gained and ensuring that herders and livestock owners are fully engaged and committed to sustainable grazing practices across all districts. The project will be implemented in consideration of conservation of biological diversity and where the use of biological diversity is included, applicable and sustainable off-takes will be regulated by the DoE. Thus the project will not promote the uncontrolled use of biological resources that could lead to their depletion. In addition, management for alien invasive plant species will be incorporated into project activities. Regulations on Biosafety will be finalised during the project term and the project activities will be designed to comply with this.
	10.1.1 Could the activity lead to degradation of biodiversity or significant reduction in one or more common animal, insect, or plant species?	Medium	No	Income generating activities may increase the use of indigenous plant species such as aloe ferox for production of petroleum jelly production; however, this is expected to be small-scale and fully capable of being implemented through sustainable harvesting procedures. The Ministry of Environment will be engaged to capacitate the community on sustainable use of biological resources, as was the case for phase I.
	10.1.2 Could the activity lead to loss (eradication or removal from local area) of one or more animal, insect, or plant species?	High	No	
	10.1.3 Could there be negative impact on any endangered or critically endangered animal, insect, or plant species?	High	No	
	10.1.4 Could the activity lead to introduction of invasive alien varieties or species which could influence local genetic resources?	Medium	No	The project will assist in the eradication of alien invasive species such as rosehip from the rangelands. The use and presence of alien invasive species such as prickly pear, pine, wattle rosehip and blue gum in Lesotho' s farming and woodlot production activities pre-exists project implementation; such plants will not be distributed to new areas. The project will support the trialling of the Miyawaki afforestation technique for micro-scale indigenous forests. Invasive species will not be introduced during the fish farming activities, should this option be chosen during the CBPP. The alien invasive species that are present in some villages which could potentially undermine the intentions of the land rehabilitation activities are primarily alien trees such as pine that have been planted in woodlots, as well as Chrysocoma, a fast-growing invasive plant in Lesotho that competes with native vegetation, reducing biodiversity and impairing soil health by altering nutrient cycles. To prevent the further spread of Chrysocoma, project activities will include engagement of community members to actively remove it in and around the villages to reduce their spread and competition with native plants. Sensitive areas will be delineated and protected from disturbances, to prevent the spread of alien invasive species into them. Appropriate vegetation restoration using native plant species will be carried out. Beyond the boundaries of the villages, the project will assist in the eradication of alien invasive species such as rosehip from the rangelands. The use and presence of alien invasive species such as prickly pear, pine, wattle, rosehip and blue gum in Lesotho's farming and woodlot production activities pre-exists project implementation; such plants will not be distributed to new areas. Prior to the provision of any trees under phase II, a climate- and ES-risk informed tree suitability study will be conducted (activity 3.1.1.g.) to inform all subsequent project activities as well as the ongoing advisory work of the MoEF. Regular monitoring and adaptive management will ensure that biodiversity is being effectively supported and the spread of alien invasive species is prevented.
	10.1.5 Could the activity lead to introduction of invasive alien varieties or species which potentially could eradicate, change, or significantly reduce local naturally occurring varieties or species?	High	No	
	10.1.6 Could the activity introduce genetically altered organisms?	Medium	No	The project will not support the introduction of GMOs. Seeds distributed through the Ministry of Agriculture include hybrid seeds to improve food production in harsh condition such as drought resistant qualities. Support to the national and district-level seedbanks will promote the preservation and dissemination of locally appropriate and adapted tree and crop varieties. These plant species are likely to have increasing economic importance going forward, as climatic conditions change.

11. Climate Change				
11.1 Could the activity lead to increased exposure, increased vulnerability, or reduced resilience of beneficiaries to the effects of climate change?		low	No	All project components and activities contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short and medium terms. Any infrastructure development will be designed to be resilient to the climate change scenarios of the different districts. Phase II activities aim to provide enhanced and accurate impact-based forecasting and last mile climate services that are communicated timeously to farmers. The AA system will be further developed to enhance preparations for drought and early warning – early action systems that respond to the respective projected forecasts. Intense rainfall and extended drought periods could potentially impact communal assets and make them vulnerable to risks of flooding and/or further soil erosion; however, these assets will be designed and constructed to withstand future projected climate impacts. If necessary, once specific localities and adaptation options have been selected during the CBPP processes, mitigation measures such as water diversion canals from the croplands to control flooding potential will be designed and implemented.
	11.1.1 Could the activities result in increased exposure to climate induced hazards?	High	No	
	11.1.2 Could the activity result in beneficiaries being more vulnerable to climate-related stresses?	High	No	
	11.1.3 Could the activity lead to beneficiaries having less means or options to withstand shocks resulting from extreme weather events (floods, storms, drought)?	High	No	
11.2 Could the activity lead to increases in greenhouse gas (GHG) emissions or to reduction of carbon sinks?			No	The project will not generate any significant emissions of greenhouse gases. Resource efficiency measures will be implemented to reduce the minor but unavoidable greenhouse gas emissions associated with project implementation. These will result predominantly from transport used for project support and extension services; thus, community support trips and extension services will be planned and scheduled to optimise efficiency and reduce associated emissions.
	11.2.1 Could the activity lead to significant increases in GHG emissions during the operation phase?	Medium	No	
	11.2.2 Could the activity lead to significant degradation or destruction of elements that absorbs and store carbon from the atmosphere (trees, plants, soils)?	Medium	No	The aim of project activities is to improve, restore and rehabilitate ecosystem functions. Restored wetlands will increase the carbon sink, whereas rangeland rehabilitation and micro-afforestation and agroforestry activities will also lead to restored vegetation and increased potential carbon sequestration.

12. Pollution Prevention and Resource Efficiency				
12.1 Could the activity lead to significantly increased release of pollution to air, land, or water during construction or operation?			Yes	While a number of risks relating to pollution of air, land, or water during construction or operation have been identified below, none of these is expected to lead to a significant increase in pollution. Nevertheless, these risks and their mitigation and remediation measures are included in the project ESMP.
	12.1.1 Could the activity lead to a dangerous increase in release of pollutants (incl. noise) to air, land, or water during construction or as result of accidents?	Medium	No	
	12.1.2 Could the activity lead to a dangerous increase in release of pollutants (incl. noise) to air, land, or water during normal operation?	Medium	No	
	12.1.3 Will the activity lead to any open burning of plastic waste during construction or operation?	Medium	Yes	Due to project activities leading to increased production and consumption, most food packages from project food production activities and those possibly purchased through cash transfers would lead to increased presence of plastic in the landscapes. Activities with plastic waste generating

				potential are decomposing shade nets, plastic packaging of food from farms. Waste disposal methods such as burning and burying of plastic are frequently used methods in targeted areas.
	12.1.4 Could the activity lead to significant negative impacts on visual aesthetic values?	Medium	No	While a few of the activities include construction that would result in an altered visual aspect to the landscape, such as sand dams in rivers, solar panels which may create some glare, and shade nets, these structures are all small-scale and would not lead to significant negative impacts on visual aesthetic values. Construction of these assets during phase I was positively viewed by community members, in a visual sense as well as in terms of their development and food security values.
	12.1.5 Could the activity lead to the discharge of untreated wastewater to the environment?	High	No	
12.2 Could the activity lead to procurement, transport, or use of chemicals, hazardous materials, or ozone-depleting substances subject to international bans?			No	The project will not include the use of substances that are hazardous, subject to international bans or have ozone-depleting qualities. In cases of any cooling facilities establishment, R32 refrigerant will be used. The project activities will not include the construction of infrastructure that uses asbestos.
	12.2.1 Could the activity lead to the procurement, transport, or use of chemicals or other hazardous materials, including asbestos and ozone-depleting gases which will not be handled and disposed of safely by following normal Standard Operating Procedures?	Medium	No	
	12.2.2 Could the activity lead to procurement, transport, or use of chemicals or other hazardous materials subject to international bans?	High	No	
12.3 Could the activity lead to increased use of agro-chemicals?			Yes	The project will promote IPM and the reduction of use of fertilizer, therefore the use of agro-chemicals in project intervention areas could in fact decrease. However, in instances where poultry production or chicken layer activities are supported, although the project will not provide any harmful chemicals, there is the possibility that farmers may increase the use of agro-chemicals for poultry production. Some may be standard agro-chemicals used in poultry rearing to avoid diseases such as Newcastle. There is a likelihood that project participants may choose to apply agrochemicals in their respective gardens. Project activities will sensitise farmers on the dangers of harmful agro-chemicals and advise them of less harmful options. Potential activities such as fish farming, and beekeeping may include an increased use in agro-chemicals that were not used in the areas before.
	12.3.1 Could the activity lead to use of agro-chemicals that potentially could be replaced or reduced by alternative environmentally friendly products or techniques?	Medium	Yes	The project will adopt an integrated pest management (IPM) approach delivered through enhanced extension support and will capacitate community members to produce their own environmentally friendly pesticides and fertilisers.
	12.3.2 Could the activity lead to use of pesticides or other chemicals, which could have an unintended effect on non-target species and environment?	Medium	Yes	This risk has been identified due to the availability of broad-spectrum pesticides in the country. The project will not supply any of these pesticides and will promote less harmful options through the IPM approach adopted. To reduce the risks associated with individuals accessing these pesticides independently of the project and using them in the project intervention sites, training and awareness raising will be provided on pest management planning at intervention sites.
	12.3.3 Could the activity lead to use of WHO class 1a, 1b, or Class II pesticides without proper application of the International Code of Conduct on Pesticide Management?	High	No	
	12.3.4 Could the activity lead to use of pesticides, herbicides or other chemicals or materials containing or polluted by Persistent Organic Pollutants (POP's) as listed by the Stockholm Convention?	High	No	
12.4 Could the activity lead to very high resource use (such as fuel or water) during operation?			No	The agriculture and WASH activities will lead to increased consumption of water for which availability is managed. This is not expected to lead to any high level of resource use. Water demand will likely increase, as people will now have improved production communally and at the household level. Climate-smart agriculture practices that promote sustainable water use will be promoted during crop farming, with the introduction of drought-resistant varieties where

				appropriate. Water consumption rates are likely to not exceed the household consumption or water per capita rates of 20 to 50 litres per household per day. For livestock farming, to address the water demand, integrated water management and catchment activities will be promoted to ensure that water is stored in the landscape for dry periods. Livestock water consumption will be managed so that it does do not increase beyond the amounts that can be captured and stored. For sand dams and water points, there will be no cumulative abstraction that exceeds the determined streamflow requirements as set by the MEF.
	12.4.1 Could the activity lead to more than 100,000 litres per year of diesel, in vehicles and/or generators?	Medium	No	
	12.4.2 Could the activity lead to major use of water from unsustainable sources (bottled and transported, gradual depletion of ground- or surface-water, change of local waterways etc.)?	Medium	No	Some of the water sources relied on by communities are springs and valley bottom wetlands that are dependent on upstream activities. As the project will implement activities to reduce land degradation, curtail erosion, and rehabilitate rangelands, this can be expected to increased recharge of some of the water sources. For sand dams and water points, there will be no cumulative abstraction that exceeds the determined streamflow requirements as set by the MEF.
12.5 Could the activity lead to generation or transport of hazardous or non-hazardous waste which could have negative environmental impacts?		Low	No	
	12.5.1 Could the activity lead to significant increase in generation of waste that will not be disposed of in an environmentally friendly manner (recycled, re-used, or recovered) by WFP, beneficiaries, or third parties?	Medium	No	The cash transfer during the lean season provided to beneficiaries will increase the waste entering the area, as communities will buy food items including tin and plastic packaging. The project might procure trees that are potted in plastics. However, no significant increase in generation of waste that will not be disposed of in an environmentally friendly manner is expected. Capacity development will be given to community members on integrated waste management. This will promote recycling of items where possible and using appropriate solid waste in gardens to improve soil quality. Waste management plans will be developed per project site or village, together with local authorities, to make sure that waste is responsibly managed.
	12.5.2 Could the activity lead to generation of hazardous waste which will not be handled and disposed of safely by following normal Standard Operating Procedures?	Medium	No	

13. Public Health				
13.1 Could the activity lead to increased risk to community health and safety from use of equipment, materials, transportation, or natural hazards?			No	During asset creation, communities use equipment such as hammers, pick axes and spades to create assets. During Phase 1, the project procured first-aid kits for all project sites and trained community members on their use, in the event of any minor I juries on site. The project will not promote the use of agrochemicals but will provide sensitisation to reduce the risks of poisoning due to unsafe and inefficient application of agrochemicals. Normally the fishponds for fish farming or other ponds could facilitate vector growth like mosquitoes. However, there is no transmission of malaria and other vector-borne diseases in Lesotho. Should fishponds be one of the selected assets through the CBPP, ESIA will be performed and this risk will be further assessed.
	13.1.1 Could activities during construction or operation phase lead to increased community risks from e.g. increased traffic, inappropriate design or use of equipment and materials that would not be handled by following normal Standard Operating Procedures?	Medium	No	
	13.1.2 Could the activity cause community exposure to water-born, water-based, water-related, vector-born or communicable diseases?	Medium	No	

14. Physical and Cultural Heritage			
14.1 Could the activity negatively affect heritage?		No	The project is not expected to have any negative impacts on physical and cultural heritage. While there are nationally or internationally recognised heritage sites in the project districts, the project activities will not be implemented in or adjacent to these sites. The project will include observation of

				cultural practices and traditions when planning project interventions to ensure that project activities do not create cultural alienation of project participants. Thus, implementation of activities and project management plans that include project participants/beneficiaries will take into considerations the local cultural practices when scheduling work, including consideration of funerals, initiation school periods and associated cultural bans, etc. If a cemetery is within a project sites designated for land rehabilitation, protection measures will be implemented around the area to preserve and improve the dignity of the site. Livestock-related activities that require engagements with herders will be planned to accommodate grazing times and central locations.
	14.1.1 Could the activity negatively impact any form of physical or cultural heritage?	Medium	No	The process undertaken to obtain allocation of land parcels that are used for project interventions includes consultation with communities as well as the local government leadership that includes chiefs, councillors and endorsements by District Authorities. Within this process communal heritage sites such as gravesite are taken into consideration.

15. Land and Soil Conservation				
15.1 Could the activity lead to negative impacts on soils, groundwater, water bodies, water ways, coastal areas, or the sea			Yes	The project could result in potential negative impacts on soils, groundwater, or water bodies – for example, some project activities will be located close to gullies and adjacent to water bodies. As the exact locations and activities are yet to be determined through the CBPP processes, further assessment is necessary once localities and adaptation options to be implemented are selected. At this stage, water abstraction rates will be determined by the MEF to ensure that there is adequate streamflow for ecological purposes, which the project will adhere to. Cumulatively, the communal gardens/demonstration sites or croplands are likely to exceed 10ha across all the villages where implementation will occur for Phase II. This is not considered significant in cumulative terms, given that this will occur spread out across four districts. The intervention advocates for the use of organic manure and natural pesticide repellents for agricultural activities and therefore there is no envisaged provision of agro-chemicals or toxic materials by the project that could contaminate water sources. Potential risks should small-scale fish farming be selected as an adaptation option are related to the quantity of water that will be diverted from rivers to service the fishponds and possible impacts of the discharged water on water quality. Depending on the exact location of this activity, some risks remain and should be adequately assessed, including any cumulative and indirect risks.
	15.1.1 Could there be significant impacts on quality or quantity of surface- or ground-water?	Medium	Yes	As sand dams are a type of soil sedimentation dam structure as per FFA engineering risk matrix[299], applicable engineering expertise will be sought to support the design and construction process. This was the case during phase I, through local engineering experts with the supervision of MEF environmental experts. During stakeholder consultations, communities identified small-scale fish farming as a potential desired adaptation activity. This will require building small fishponds (with maximum dimensions of 10mX10m, with a depth of 3m), which should have limited environmental and social impacts. The selection of the areas and beneficiaries will be aligned to the community-based participatory planning approach resulting in integrated community action plans outlining priority needs and interventions at community level. Depending on the exact location of this activity, some risks remain and should be adequately assessed. Potential risks are related to the quantity of water that will be diverted from rivers to service the fishponds and possible impacts of the discharged water on water quality. At this stage, cumulative and indirect impacts will be assessed and appropriate mitigation measures designed

[299] Engineering Risk Matrix

				The livestock and crop agriculture activities will likely lead to an increased use of ground or surface water. However, the intention is to restore ecosystem functions and catchment management services before implementing activities that rely on the water. The respective assessments will be undertaken by the DRWS prior to implementation for consideration by the PMU and applicable supporting technical expert, under the overall regulation of the MEF.
	15.1.2 Could the activity lead to major changes in flow regimes of local waterways, conditions of water bodies, or coastal areas?	High	No	
	15.1.3 Could the activity lead to increased soil erosion, run-off, or significant changes to soil characteristics?	Medium	No	The project adaptation interventions have been designed to reduce the soil erosion and land degradation that exists in Lesotho generally. Project activities such as agroforestry, mulching and application of manure will enhance soil health and structure. The project implementation will incorporate soil erosion management measures such applying alternative measures of managing the rangeland encroaching plants like Chrysocoma as well as implementing soil bunding and stockpiling when working in areas with sensitive and highly erodible soils. Management of Chrysocoma may require cutting of the plant at the stem rather than uprooting. Activities that include the use of local resources will incorporate rehabilitation of sites and allocate a single area for sourcing of stones, soils, and sand.
	15.1.4 Could the activity lead to serious soil erosion (e.g. major gullies, sheet erosion etc.) or major detriments to soil quality over a large or locally important area?	High	No	Due to the mountainous terrain of the country, all site-based activities will ensure that slope stabilisation, soil protection and water management activities are carried out before implementation, so that activities do not result in increased soil erosion or reduced soil quality.
15.2 Could the activity lead to negative impacts on forests, wetlands, farming or grazing land, or other landscape elements of ecological or economic importance?			No	The project aims to rehabilitate a number of wetlands, especially in Thaba Tseka district which is a major source of water in the country. This will be conducted under the strict supervision of the MEF experts to ensure environmentally sound implementation.
	15.2.1 Could the activity lead to degradation or fragmentation of local forest areas, wetlands, prime farming or grazing land, or other landscape elements of ecological or economic importance?	Medium	No	
	15.2.2 Could forests, wetlands, prime farming or grazing land, or other landscape elements of ecological or economic importance be almost fully destroyed or degraded or heavily fragmented?	High	No	
	15.2.3 Could the activity lead to a significant increase in consumption of locally sourced fuel wood?	Medium	No	Most villages in Lesotho still use fuel wood for cooking, heating and other purposes. However, the project intention is to reduce reliance on fuel wood by providing the communities with energy-saving methods (energy-efficient stoves and heat retention bags). Micro-afforestation using indigenous species will be conducted to resuscitate the eroded forests.

The screening was conducted at project proposal stage and based on information available at this time. Due to the unidentified sub-projects (USPs) of Component 2, some of the screening questions triggered a "Medium risk" categorization, or **ESS category B**.

Process for further treatment of the USPs

The basis for the USPs in the project relates to (i) localities that are not yet fully specified, (ii) beneficiaries whose whose targeting criteria has not been refined, and (iii) participatory choices of specific activities to be undertaken during the project implementation, facilitated through the CBPP process. The latter include climate-resilient agricultural technologies (as specified in the adaptation menu of options), which climate-resilient value chains will be selected in the different localities (from the choice specified of sorghum, beans, or additional two or three value chains to be identified to promote increased income from indigenous medicinal plant species, to support removal/management of invasive species like rosehip, and/or to demonstrate a pathway to organic production), and whether participants will avail themselves of micro credit, amongst other choices.

The CBPP will be preceded by a few preparatory activities included in the project description, ~~The necessary preparatory process before the CBPP can be conducted requires completion of a number of project activities,~~ including: (i) developing the new materials on the CC/FS/GEN/NUT nexus (Activity 2.2.1.a); (ii) designing the comprehensive training strategy to cover the needs of all three components and M&E (Activity 2.3.1.b); (iii) supporting the GoL to conduct ToTT for CBPP at national, district and community levels (Activity 3.1.1.a); and (iv) developing the overlay of hazards and vulnerability context for the

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implementation sites (Activity 3.1.1.d); amongst others. The CBPP process will be conducted in alignment with the AF's Gender Policy and Environmental and Social Policy, WFP's Gender Policy, Environmental Policy and Environmental and Social Standards and national protocols and quality standards.

Once the CBPP process is finalized and community-based adaptation plans are developed, the selected adaptation options to be implemented under component 3 will be screened through the Environmental and Social Screening Tool presented in Annex 7 to ensure that any potential unwanted impacts of planned activities are anticipated, avoided, reduced, or mitigated. The screening will ensure that the overall project risk category of B is not exceeded and applicable ESS instruments to mitigate/minimise/control the risks are in place. The screening will be led by the Department of Environment in the Ministry of Environment and Forestry, with technical support and oversight from WFP experts. ~~Activities will be designed by the communities through participatory community consultations that will include environmental and socioeconomic experts. Activity design will consider the AF's Gender Policy and Environmental and Social Policy, the WFP Gender Policy and Environmental Policy and Environmental and Social Standards and comply with WFP and national protocols and quality standards. Specific design will therefore be determined as the project progresses and will be tailored to the needs of the targeted communities. USPs will be further screened prior to implementation to identify potential new risks and adopt appropriate mitigation measures to be captured by relevant ESMPs for implementation, monitoring and reporting. At this stage there will be further stakeholder consultations to ensure full input into the findings of the project's environmental and social risks identified and measures developed to address these. Due to the regulatory framework, some applicable mitigation measures will be obtained from the Ministry of Environment's Environmental Impact Assessment Section. In addition, tracking and quantifying of indicators and impacts of Phase I is underway and will be used to justify the level of rating assigned to the question responses.~~

Should any activity be classified as Category A or high risk, this will be re-designed to ensure that it falls under Category B. Following the screening of sub-projects, the ESMP will be revised to include the new risks that have been identified, the negative impacts that are expected and the measures that are needed to manage or avoid those negative impacts, indicating who will be responsible for their implementation.

~~Community based adaptation plans developed under component 3 will be screened – at activity/asset level – through the Environmental and Social Screening Tool presented above to ensure that any potential unwanted impacts of planned activities are anticipated, avoided, reduced, or mitigated. It classifies activities into risk categories, which determine what further action is required. Potential risks, whether social or environmental, will be identified at community level. Activities will be designed by the communities through participatory community consultations that will include environmental and socioeconomic experts. Activity design will consider the AF's Gender Policy and Environmental and Social Policy, the WFP Gender Policy and Environmental Policy and Environmental and Social Standards and comply with WFP and national protocols and quality standards. Specific design will therefore be determined as the project progresses and will be tailored to the needs of the targeted communities.~~ Before an activity starts, the environmental specialist will fill in the E&S screening tool presented above including information on the planned activity at community level and information from consultation processes carried out with communities and relevant governments and stakeholders. As a result of this screening process, any potential impacts the activity could have on the environment or communities will be identified and each activity will be classified as Category A, ~~Category A,~~ B or C, which will determine necessary next steps:

Low Degree of Concern (Category C) corresponds to a Category C activity and indicates minimal or no adverse impacts. Small impacts can be readily avoided or mitigated by adhering to WFP's E&S standards. No further E&S Safeguard action is required beyond the application of the guiding principles, stakeholder engagement, and stakeholder access to complaints and grievance processes. A new screening must be undertaken if there are changes in content, scope, or scale of activities. A brief statement of explaining why the activity is considered to be of low degree of concern should be included at the end of the summary form.

Medium degree of concern (Category B) corresponds to a Category B activity and indicates that there is expected to be some reversible impacts of limited magnitude and which can be mitigated. The difference between a Category A and a Category B activity is the greater possibility to prevent or mitigate some or all adverse impacts. If the impacts cannot be avoided by design changes, mitigation measures must be implemented. These measures must be described and planned in an environmental and social management note (ESMN) which often can be prepared either internally or with limited external consultant support. The mitigation measures must be integrated into the activity planning and should be monitored and reported on as part of the normal activity reporting.

High degree of concern (Category A) corresponds to a Category A activity and indicates that that highly significant or irreversible adverse impacts can be expected. In case a sub-project is found to have a high degree of concern, it will be redesigned with the community in question to ensure that the activity falls under a risk category B or C.

Following the screening of sub-projects, the ESMP will be revised to include the new risks that have been identified, the negative impacts that are expected and the measures that are needed to manage or avoid those negative impacts, indicating who will be responsible for their implementation.

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~~High degree of concern (Category A) corresponds to a Category A activity and indicates that that highly significant or irreversible adverse impacts can be expected. If the activity design is not changed to avoid or mitigate those impacts an Environmental and Social Impact Assessment (ESIA) will be required in order to more accurately identify potential impacts and related mitigation and compensation measures. An environmental management and monitoring plan (EMMP) and possibly other plans will also need to be drawn up. The ESIAs are normally carried out by specialized consultants and costs and time required must be included in activity planning. A typical ESIA can take 3-6 months depending on scale and complexity and national legal requirements. Once completed, the screening form will be submitted to WFP Country Office and to the Ministry of Environment for verification and approval.~~

Any identified impacts will be subject to monitoring and follow-up to ensure that planned mitigation measures are implemented and effective. All activities will be monitored following schedules outlined in Section D Part III, and will comply with local, district and national laws, WFP Environmental and Social Standards and the Environmental and Social Policy of the Adaptation Fund. ~~For a High level/Cat. A impact activity that requires an Environmental and Social Impact Assessment (ESIA), the related Environmental and Social Monitoring and Management Plan (ESMMP) must be followed.~~

While the screening of environmental and social impacts is led by the Department of Environment within the Ministry of Environment and Forestry (MEF), the implementation of activities related to natural resource management and livelihoods is carried out by the technical departments in both the MEF and the Ministry of Agriculture and Food Security (MAFSN). Monitoring of the Environmental and Social Management Plan (ESMP) for the identified activities, will be conducted by the planning units within both MEF and MAFSN, in collaboration with the Project Management Unit (PMU). The World Food Programme (WFP), as the IE, will provide technical support and oversight to ensure quality assurance throughout the screening processes and implementation of the ESMP.

The outcomes of the identification and ES screening of USPs will be communicated to the AF through the annual Project Performance Report, by filling out section 5. "Project/Programmes with Unidentified Sub-Projects (USPs)" of the ESP Compliance chapter.

Indirect, transboundary and cumulative risks and impacts

In addition to the potential direct risks posed by project activities, the environmental and social risk screening process included a consideration of potential indirect, transboundary and cumulative risks and impacts that could result from the project activities. These considerations have been integrated into the risk screening set out above, and in Part II.K of the proposal.

Attestation of Screening						
Name and location of activity:	Thaba Tseka (Setoetoe and Ha Majara) Mafeteng (Isaka and Lekhari) Quthing (Ha Mohlakoana and Tsatsane) Mohale's Hoek (Majapereng)					
Responsible WFP unit or office:	Programmes					
Implementing partner(s):	Ministry of Environment and Forestry					
Expected timing & duration of activity:	May 2025 to April 2029					
Brief summary and main elements of the activity (e.g. from activity brief or similar):	Anticipatory Action and Climate Change responses that build adaptive capacity of communities and government institutions.					
Result of screening: Category A / High degree of concern		**Category B / Medium degree of concern**	**X**	Category C / Low degree of concern		
I hereby attest that the screening has been carried out by a person or persons with suitable knowledge and experience, who has/have given undertakings that the work has been done diligently, objectively, and without known biases. The assessment is to the best of our knowledge complete and reflects a professional, evidence- and context-based assessment. Where in doubt, specialist advice and supplementary expertise have been sought.						

Name, position, and signature of WFP personnel signing this attestation:	Emily Doe, Deputy Country Director WFP
Names, affiliations, and positions of personnel who did the screening for environmental issues:	Nkopo Matsepe WFP IACOV Project Manager Matoka Moshoeshoe WFP Public Works Expert Ntebaleng Thetsane WFP Program Officer Lekeli Motsumi WFP M&E Associate Nkopo Matsepe WFP Project Coordinator Nthomeng Mahao WFP Field Monitor Matsepiso Macheli WFP Field Monitor Makganthe Maleka WFP Regional ESS Advisor
Names, affiliations, and positions of personnel who did the screening for social issues:	Nkopo Matsepe WFP IACOV Project Manager Matoka Moshoeshoe WFP Public Works Expert Ntebaleng Thetsane WFP Program Officer Lekeli Motsumi WFP M&E Associate Nkopo Matsepe WFP Project Coordinator Nthomeng Mahao WFP Field Monitor Matsepiso Macheli WFP Field Monitor Makganthe Maleka WFP Regional ESS Advisor
The screening was done as team/group work	Yes
Was additional specialist advice/support used? If yes, indicate name, affiliation and specialization.	No
Was advice sought from the HQ/Regional E&S Safeguards Team?	Yes
Did screening lead to changes in activity design? If yes, please briefly describe how.	No
Please write any observations, uncertainties or other factors of importance here. Positive co-benefits of the activity can also be described here. **If the activity is categorized as Low Concern/Cat. C, please provide a short description explaining why.** Due to the high altitude and topography of the district, the soils in Thaba-Tseka are young and shallow, which makes them susceptible to high erosion rates if not managed well. Implementation of all site-based activities will be required to take this into account, using approved land cultivation and construction methods that are appropriate to the soil structure. On the positive side, the Popa soils series found in Thaba Tseka supports the growth of native vegetation very well and consequently is a positive basis for animal rearing. The occurrence and use of alien invasive plant species in most villages including blue gum, pine, and wattle as part of a national afforestation program may have long-term negative impacts on the project sites. In addition, there is a high prevalence of bush-encroaching plant species such as *Chrysocoma ciliata*[300], *Felicia filifolia*, and *Helichrysum splendidum* shrubs that require management.	

2. Environmental and Social Management and Monitoring Plan

[300] Chrysocoma as indigenous species

AF ESP principle	Residual Risk	Level of risk	Mitigation measures	Responsible	Monitoring arrangements and/or indicators	Budget
Protection of Natural Habitats	Unlicensed and unregulated use of biodiversity (hunting of wildlife and gathering of medicinal plants)	Medium	Engage with traditional leaders and the district authorities to develop community based sustainable resource management processes and management plans to mitigate any unintended negative impacts from land restoration. Incorporate natural resource management capacity building into project activities. Collaborate with MEF to raise awareness about protection of biodiversity including wildlife	IACoV PMU, MEF, Extension Officers & Component coordinators	Number of community-based resilience and/or adaptation plans in targeted areas Number and types of community natural resources management plans incorporated into community-based adaptation plans	Already included under Component 3 budget and in MEF annual plans.
Pollution Prevention and Resource Efficiency	Project could lead to increased open burning of plastic waste during implementation Farmers may increase the use of own-purchase agro-chemicals where these activities are supported Unsafe and inefficient application of agro-chemicals and pesticides	Medium	Awareness raising on impacts of pollution within project activities, capacity of communities on recycling of waste through IGA groups Waste management plans developed, implemented and integrated into project SOPs/ implementation plans Non-provision of any harmful agro-chemicals Sensitisation of participants on harmful effects of many agro-chemicals and training on IPM approaches Support for production of local, non-harmful fertilisers, compost, and natural pesticides	IACoV PMU Department of Rural Water Supply/ Component Coordinator /Extension Officer/Agroecology expert/Construction managers CPs and Participants of applicable project interventions as per Activities Menu	Waste management plans developed and implemented Number and type of IGAs that include waste management (recycling, reusing and/or repurposing) Number of people reached through inter-personal SBCC approaches on CC-FS-GEN-NUT nexus (sex- and age-disaggregated	Already included under Components 2 and 3.
Land and soil conservation	Potential negative impacts on soils, groundwater, or water bodies from construction of community assets Increased water use demand at intervention sites and reduced water availability to maintain streamflow and for other users/downstream users Increased consumption of locally sourced fuel wood		Screening of selected options from Community Adaptation Plans for each project site Land rehabilitation and catchment management activities promoted and implemented Hydrology and Water quality and assessment reports from DRWS Adhere to water abstraction rates determined by the MEF to ensure that there is adequate streamflow for ecological purposes and to not negatively affect downstream users Provide inputs and train community members to produce energy-efficient methods (stoves and heat retention bags)	IACoV PMU / Dept. Of Environment, Department of Rural Water Supply, Extension Officers, Agroecology specialists, Environmental Officers, Field Monitors	Number of Community Adaptation Plans developed and screened (one for each project site) Area of land rehabilitated and with improved vegetation cover in ha Number of households using fuel-efficient devices Number of woodlots planted with indigenous tree species to support heating and cooking in communities	Already included under Component 3.

			Continue support to national seed bank and establish district seed bank, implement afforestation of Indigenous trees (micro forests)			

Annex 8. Project Grievance Mechanism

A8.1. Purpose of the Grievance Mechanism

The project grievance mechanism (PGM) aims to address and resolve grievances raised by stakeholders, including the communities where the Adaptation Fund project will be implemented, in a systematic manner. The mechanism aims to assist all parties in a timely, fair, and transparent manner. It is designed to ensure that project activities align with environmental, social, and ethical standards while minimizing adverse impacts. The grievance mechanism will safeguard the equal rights of diverse individuals, families, groups, and partners to participate in and influence effective programme implementation. The IACoV Phase II project, the government executing entities, and WFP will create a conducive environment for this right to be exercised. Several feedback mechanisms will be in place to promote a human-centred approach. The adopted PGM builds on lessons learnt from the experiences of the current phase of the IACoV project.

A8.2 Scope

This mechanism applies to all stakeholders affected by the IACoV project, including community members, local authorities, project staff, The National University of Lesotho's call centre operators, partners including financial service providers, and other relevant parties.

A8.3. Principles

The PGM will operate under the following principles, to ensure an effective and functional project grievance mechanism. At all times, the principles safeguard the trust between the project implementers and the community:

- **Accessibility**: The mechanism is easily accessible to all stakeholders especially the most vulnerable groups including people with disabilities. The PGM's accessibility principle ensures that the process is free for all groups, uses local language and considers the varying literacy levels for the different groups.
- **Transparency**: The process of grievance handling to be impartial and transparent such that the stakeholders know about it, how grievances can be submitted and how feedback can is provided.
- **Fairness**: under this principle, grievance handling ensures impartiality and equal opportunity to all sides such that the process is fair and equity.
- **Timeliness**: Grievances are addressed promptly within established timelines including provision of feedback/resolutions to the relevant parties.
- **Confidentiality**: Confidentiality of grievances and complainants is maintained unless disclosure is required for resolution in which case relevant consent will be sought.

A8.4. Roles and Responsibilities

Different offices/stakeholders within the PGM will have different roles and responsibilities. This will ensure that all principles are adhered to. The project will ensure that the following offices are represented:

- **Grievance Focal Person**: Manages the GRM, including registration, assessment, and coordination of grievance handling. This role is held by WFP Lesotho CO.
- **Grievance Committee**: Includes project staff, community representative, executing entities representatives, and other relevant stakeholders responsible for resolving grievances.
- **Project Manager and Protection Focal point**: Provides oversight and ensures that grievances are resolved in compliance with project policies.

A8.5. Communication and Awareness Raising on PGM

The project will ensure that the project stakeholders have adequate and detailed information on the grievance mechanism. Different communication channels will be used including community meetings/gatherings, brochures and or flyers written in local language to publicize the grievance mechanisms and maximize their use. The flyers, brochures, and posters will also be placed in areas of public interest such as chief's places. Since the community leaders and community committees will be engaged in the process of grievance handling, required trainings and sensitizations will be undertaken, not excluding trainings for project staff and any relevant stakeholders. Key offices involved and the tollfree number will also be shared with the actors.

A8.6. Grievance Handling Process

The following steps outline the steps and process of handling the grievances by the project:

Step 1: Grievance Submission

Grievances will be submitted through various channels, including:

- **Help Desk**: A diverse, gender-balanced committee will be established at each project site to receive daily complaints and suggestions from communities involved in livelihood activities. Grievances will be recorded in a logbook, with those requiring further action escalated to the IACoV and executing teams.
- **Tollfree**: WFP, in partnership with the National University of Lesotho (NUL), has set up a toll-free number for communities to share feedback and grievances. Managed independently by NUL, trained operators escalate issues to WFP for timely resolution. A designated WFP officer will coordinate with WFP and IACoV teams to ensure grievances are addressed and feedback is provided to committees within three working days.
- **Reporting direct to WFP /IACoV or executing entity offices**: encouragement will be made for grievances to be lodged directly with project staff or executing entities staff during community meetings or directly in the offices.
- **Submission through email**: To enable communities to share more detailed grievances, an email portal will be introduced. It will serve as an alternative channel for submitting grievances, especially during periods when the toll-free line is inaccessible due to bad weather or other disruptions. The official call centre email address will be widely shared to ensure easy access for assisted communities.
- **Establishment of an online portal**: Leveraging advancements in digitalization, an online portal will be developed to allow communities to share their opinions and grievances conveniently.
- **Submission through community representatives**: In project implementation sites, trained community representatives, including chiefs, will be designated to receive complaints. These representatives will forward the grievances to WFP offices on a weekly basis, ensuring timely action is taken.

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Step 2: Resolution and Feedback

- Feedback is provided to the complainant within 3 working days of grievance registration.
- If the complainant is satisfied, the grievance is closed. If not, the grievance is escalated to a higher authority, such as the Project Manager or an independent Grievance Committee.

Step 3: Appeal Process

- If the complainant is dissatisfied with the resolution, they may appeal to a higher-level committee or an independent mediator.
- The appeal process will follow the same principles of fairness, transparency, and timeliness.

Step 4: Monitoring and Reporting

- All grievances and resolutions are documented and monitored regularly.
- Reports on grievances are included in project progress reports and shared with stakeholders.

A8.7. PGM Resources

The project will ensure that there is an adequate budget to ensure full and efficient PGM operation. This will include operational costs for NUL as well as adequate M&E budget or any process that may be necessary to address the grievances. A PGM action plan will be developed highlighting the main activities to be undertaken in support of the PGM team.

A8.8. Continuous Improvement

The GRM will be periodically reviewed and updated based on feedback and lessons learned to enhance its effectiveness and responsiveness. The M&E findings will also be used to inform PGM improvements.

Annex 9. Summary of climate smart ecosystem rehabilitation and management economic analysis

Introduction: Under IACoV phase I, an economic analysis of climate smart ecosystem rehabilitation and management was commissioned to assist with prioritizing the most appropriate and cost-effective adaptation options to implement. While it had been intended to conduct this study prior to implementation of the concrete adaptation activities in year 2, this was not possible due to various delays related to the COVID-19 pandemic and difficulties experienced in contracting a suitable service provider; thus, the report was completed in September 2023. The effect of this was to allow for an assessment of activities already under implementation, which provides an important indication of those adaptation activities that have been found to be the most cost effective and have the greatest cost-benefit. **Annex 9** presents a summary of the full report.

Objectives: The main objective of the report was to build evidence on prioritization of adaptation interventions based on benefits and effectiveness against the investment using Cost Benefit Analysis (CBA) and Costs Effective Analysis (CEA). This included data analysis for both CBA and CEA on five intervention areas: Land Rehabilitation Programme (LRP), short cycle livestock, keyhole gardening, orchard establishment and communal gardening. LRP refers to the land rehabilitation activities carried out under IACoV I, using cash-based transfers (CBT) as a necessary modality during the lean season. This was in line with the GoL's land rehabilitation known as *fato-fato*. The LRP activities assessed included gully structures, gully heads, stone lines and trench lines, diversion furrows, silt traps and grass reseeding that promoted soil conservation. The LRP activities were done on all 21 electoral divisions (community councils) where the IACoV project is being undertaken. The interventions covered on average 16.25 hectares at the time of the economic analysis. A total of 2,856 households per year had been positively and directly impacted by the intervention.

Methodology: Multiple approaches were adopted to adequately cover the objective of the study. These included desktop review, face-to-face interviews, triangulation and analysis, using MS Excel. CBA was the main method that is used to achieve the main objective of the study. It is an appraisal technique that is used to assess the viability of a proposed or implemented project, either from an economic or financial perspective (Boardman, A., et al. 2011; Anderson, D. R. 1997). CBA uses money as the common unit to determine a project's economic/financial viability (Hanley et al., 2001; Freeman et al., 2014). The seven steps of CBA followed are: 1) project description, 2) identification of the costs and benefits, 3) quantification of the costs and benefits, 4) Valuation of the Benefits, 5) Discounting of the benefits, 6) calculating the NPV and IRR and 7) Sensitivity analysis. Since, these are climate change/environmental projects, a low discount rate has to be adopted and therefore, a discount rate of 5% was used. Data collection was done over seventeen days: 11th to 30th September 2023. Data cleaning, preliminary and data analysis were done thereafter. The intervention impacts (costs and benefits) were identified, quantified and valued to derive Net Present Value (NPV) and Internal Rate of Returns (IRR). Quantification is based on the scale of production (yield and frequency of harvest) and valuation is based on national market prices. In addition, qualitative data is identified to assess the qualitative impacts (positive and negative) of the interventions. Lastly, desk review formed an important methodological approach to close the data gaps and also for verification purposes.

Data limitations: Data collection had significant challenges particularly where activities had not yet yielded benefits or where the benefits are not yet apparent. This creates uncertainty as the actual project benefits could be lower or higher than the ones estimated from literature. However, this uncertainty was tested through sensitivity analysis. In addition, the beneficiaries did not have good record keeping on the operational costs and profits of the interventions. Therefore, assumptions were made by using those with good record keeping. Lastly, the valuation of erosion involved using the national government expenditure and estimating the avoided costs per hectare. However, obtaining the accurate data proved to be difficult.

Discussion of the economic analysis results: All five climate resilient initiatives were subjected to economic analysis to determine their economic efficiency and effectiveness in building community members' resilience to climate change impacts. These five projects are LRP, short cycle livestock, keyhole gardening, communal gardening and orchard establishment. Based on a lifespan of 12,15 and 20 years and using a discount rate of 5%, the project interventions, except for communal gardening, displayed NPV of M30 million, M19 million, M42 million, and M4 million respectively. The interpretation of the results is that the four projects are economically viable as climate change adaptation interventions. Thus, the interventions are economically efficient and display a great potential to increase community adaptive capacity by generating revenue from sale of the produce and to reduce community vulnerability through consumption of some of the produce. However, the communal gardening intervention displayed a negative economic NPV of M35 million indicating that it is not economically viable and cannot increase community adaptive capacity to climate change.

Equally important is the indirect benefits that are likely to arise from the successful implementation of economically viable projects. These projects have multiple positive benefits through soil erosion control and other ecosystem services such as enhancing biodiversity in the area. Soil is a critical and pivotal resource which affects productively of all ecosystems (agroecosystems, rangeland, wetlands) and biodiversity. Therefore, controlling soil erosion will have multiple benefits which will safeguard communities against climate change impacts and ensure continued productivity even under stress situations such as droughts and floods. Another indirect benefit of these interventions is enhancing biodiversity in the area particularly bee population. Increased biodiversity will contribute to increase in ecosystem services in the area such as cross pollination which affect agricultural production and honey production. Due to unavailability of data and the challenge of attributing bee impact on agricultural yield, these benefits were not included in the calculations.

Members of the communities also noted that the projects will enhance ecosystem aesthetic which will increase their happiness. This is an important benefit with additional health benefits and increase community members lifespan. In addition, they also highlighted that they got employment from working on the project sites since they spent most of their times there. These interventions will yield additional indirect benefits which will directly and indirectly contribute towards building community resilience to climate change impacts.

Whilst the results from CBA displayed positive and strong NPV and IRR, it must be stressed that the environmental benefits from all interventions have been undervalued to cater for uncertainty and in some instances have not been quantified and valued due to limited data. For instance, the study significantly underestimated the government expenditure on soil erosion control with a value of M9.12 per hectare year. This ultimately had an impact on the NPV and IRR. In addition, there were no costs for animal feed that the beneficiaries indicated they did receive from the project, contributing to the strong NPV on short cycle livestock. Despite these limitations, the four interventions still displayed strong NPV and IRR.

Under sensitivity analysis, orchard establishment displayed a negative NPV of M22 million. Under worst case scenario, the project indicates that it will not be a viable climate change intervention. This is an important result to inform the decision makers that appropriate procedures for fruit tree management are undertaken so that the yields are maintained even during the drought years. It must be emphasised, these results were expected since already under ideal conditions, the exercise assumed low yields. On the other hand, three interventions (LRP, short cycle livestock, and keyhole gardening) displayed strong returns even under the worst-case scenario. Community exposure to climate change is heightened by their dependence on the environment or ecosystem. The interventions have potential positive impacts which will reduce this exposure by improving the ecosystems and their livelihoods. Although these interventions are described as economically efficient and effective measures in reducing community vulnerability, some disturbing findings were observed during data collection. One of the main issues was high mortality from the fruit trees and also lack of water for watering the fruit trees and vegetables at the communal gardens, hence low productivity. It is important to highlight that fruit tree yield is a function of water availability and fruit trees have to be watered as per their water requirements. Thus, the project design needs to ensure that the orchards and communal gardens have water availability and are commercially operated to ensure that assumed yields are achieved.

Another important factor that needs to be considered is the use of organic vs inorganic fertilizers under climate smart agriculture. It is important to note that climate smart agriculture promotes organic fertilizers which regulate the soil temperature even under hot conditions. The organic fertilizers reduce the impact of heat on crops and conserves soil moisture. Therefore, community needs to be trained on the use of organic fertilizer and coverage of the soil to maintain soil water and increase organic content in the soils as is done on keyhole gardening. Also, the project should consider protected agriculture using shade nets and tunnels for communal gardening to increase yield since the analysis proved it to be not economically viable with a negative NPV of M35 million. Based on the findings of the economic analysis, it is critical that short cycle livestock and keyhole gardening interventions are promoted nationally to ensure that food security and ecosystem integrity are enhanced. Similarly, LRP and orchard establishment will also enhance ecosystem and biodiversity.

Conclusion: Based on the results from the CBA which identified the interventions' impacts (socio-economic and environmental) the following conclusions were drawn: (i) LRP and orchard establishment are cost efficient and effective climate change adaptation measures which have an enormous potential to increase community resilience and also reduce vulnerability to climate change. The two interventions have the potential to reduce exposure of the community by improving ecosystems' (rangeland land, wetland and agroecosystems) productivity through soil erosion control. Additionally, the interventions can complement each other and support other economic activities such as beekeeping and crop production. (ii) The two other interventions (keyhole gardening and small cycle livestock farming) can increase adaptive capacity through income/revenue generation from the sale of produce and the yields can be maintained even during less favourable periods such as drought, as long as the principles of conservation agriculture are followed which will ensure conservation of soil water/moisture even during water scarcity and sustainable fodder production for small cycle livestock. (iii) Communal gardening with the current approach, according to the CBA results, should be eliminated. However, it can be improved by training and frequent supervisions so that the yield can be improved.

Recommendations: The following recommendations are drawn from the analysis:

- Implement timely monitoring and evaluation of the interventions to optimize the benefits.
- Foremen and supervisors should have frequent refresher trainings and emphasis should be on the measuring and reporting progress.
- Replicate the LRP project to cover large areas so that the benefits of soil erosion can be achieved at a larger scale. This will also have multiplier effect to other ecosystem that are affected by soil erosion such as rangelands, agroecosystems and wetlands.
- Orchard establishment, short cycle livestock and keyhole gardening should also be replicated because they are cost effective and effective climate change adaptation interventions.
- Encourage the use of organic fertilizers to protect the soil resources to increase agroecosystems productivity
- Constructing earthen dams to ensure water supply to the orchards will assist in reducing fruit tree mortality and that water can also be used for irrigation to the communal gardens.
- Ensure sustainability of the interventions through applying a participatory approach to their planning and implementation, and sensitize and give incentives to communities by implementing household complementary projects that can fully benefit from the interventions, such as basket weaving projects, bee keeping, spring water supply projects, amongst others.
- Communal gardening should not be eliminated from other projects, rather improve supervision and trainings should be conducted more often so that production can improve, thus improving yield.
- Provide shade nets and tunnels to protect the crop production from the effects of climate change.

Annex 10. Summary of study on climate change perceptions, climate information needs, and local knowledge, beliefs and understanding

Introduction: The climate change perceptions and climate information needs study on local knowledge, beliefs and understanding of climate patterns and climate change was undertaken during IACoV phase I to enhance the understanding of local knowledge and beliefs on climate change and promote the acceptability of climate services to the local communities. The study, comprising a 78-page report, was completed on 27 June 2024. This annex provides a summary of the report.

The specific objectives of the study as outlined in the study Terms of Reference were:

i. To identify barriers to the uptake of climate services and find possible solutions; and

ii. To identify areas of convergence and divergence between climate science and local indigenous knowledge, so that awareness-raising and behaviour change messaging can be developed from the areas of convergence.

Methodology: The study was carried out at the national level and in the three southern districts. The identified study informants and preferred data collection method had been formulated as: i. District Technical Teams (Heads of Departments) – Focus Group Discussions; ii. Local Authorities (Chiefs and Councillors) - Focus Group Discussions; iii. Resource user groups at community level - Focus Group Discussions through public gatherings. These include: a) Water, sanitation and health committees; b) Natural Resources Management Committees (e.g. rangelands, wetlands, soil & water conservation, Grazing Associations etc.); c) Agriculture: Farmer Associations or groups; d) Livelihoods groups; e) Traditional Healers' Associations; f) Livestock owners; g) Herders; h) Women and youth; and iv. Household Heads – Survey Questionnaire administration; v. Lesotho Meteorological Services – Key Informant Interviews.

However, the targeted FGDs with various resource-user groups outlined above could not proceed due to challenges encountered at the field concerning the timing of the study and convening of public gatherings. With guidance from the Department of Forestry and WFP personnel in the districts, the study team were alerted that it was not possible for the Chiefs in the study areas to call public gatherings through which these stakeholders could be interviewed. The reason being that following the heavy rain experienced in the country, people were busy working in the fields (weeding) and no public gatherings could be organized by the Chiefs as there was a tight window of opportunity left to complete weeding before experiencing major crop damage. Despite this setback, some project beneficiaries in Mafeteng formed part of the focus group discussions held. During engagement with the project beneficiaries, various resource user groups were identified, forming part of the discussions. Having lost out on the opportunity for FGDs with resource-user groups, an alternative approach was adopted to ensure that targeting of the household head survey included representation of those resource-users as much as possible. The household head survey was then rolled out. Through the survey, 307 household heads were interviewed.

Potential barriers to the uptake of climate services: The World Meteorological Organization, through the Global Framework for Climate Services (GFCS), describe Climate services as…" the provision and use of climate data, information and knowledge to assist decision-making. Climate services require appropriate engagement between the recipient of the service and its provider, along with an effective access mechanism to enable timely action." Therefore, climate services equip decision makers in climate-sensitive sectors with better information to help society understand and respond to and manage climate variability and change. Various coping mechanisms applied by the vulnerable farming communities, as well as long-term adaptation strategies become much more effective and efficient when informed by the climate services.

Climate services are developed, delivered and used in many different ways, based on different needs, competences and capacities. The following five steps have been identified as good practice to achieve this (GFCS, 2024).:

STEP 1: Understanding the demand side;

STEP 2: Bridging the gap between climate science and sector expertise;

STEP 3: Co-producing climate services to address end-user climate service needs;

STEP 4: Communicate to reach 'the last mile'; and

STEP 5: Monitoring and evaluation.

The study to investigate climate change perceptions and document climate information needs on local knowledge, beliefs and understanding climate patterns and climate change in Lesotho marks an important deliverable under STEP 1 above; as it forms the basis for understanding the demand side of climate information services, based on feedback from the end-users of this information. The study has established the perceptions of communities on the concepts of climate variability and climate change and documented their understanding of climate change, including any other misconceptions that could mislead the end-users.

The documented misconceptions, myths and other beliefs that may often cause or mislead the end- users into ignoring the early warning systems and other climate information services disseminated to them (e.g. seasonal crop forecasting / climate forecasting information), present an ideal opportunity for the service provider to design, develop and implement appropriate training and capacity building programmes to bridge this gap. This issue talks to STEP 2 of the process described above. This step is further informed by the documented needs under STEP 1 which provide insight into what the specific requirements of the information end-users area and how the information should be packaged and delivered to them, including its timing of communication. For example, the study has established that the farmers desire to be informed timeously of the timing and amount of rainfall that can be expected in the seasonal climate forecasts that are carried out based on scientific forecasting methods. This information is needed as part of the weather and climate information services package that is disseminated by the Lesotho Meteorological Services (LMS). They emphasized that this information is particularly useful to inform their livelihoods decisions as their livelihoods options are mostly climate-sensitive – i.e. based on the agricultural sector.

STEP 3 of the process envisions enhanced effectiveness of the process when climate information services are co-produced; wherein the service provider and the information end-users partner to address real needs, thereby ensuring effective uptake of the information (e.g. enhanced understanding and use of the climate data, information and knowledge to assist farmers in decision-making). Literature, documented in case studies provided by the WMO and the State of Climate Services Report partners, emphasizes how climate information services and early warning contribute to improved climate resilience across various climate-sensitive key productive sectors such as health, agriculture, water and energy etc. This helps in achieving socio-economic benefits through climate services at various levels (national, regional and global scale).

STEP 4 of the process emphasizes the importance of or effective communication. The development of the National Climate Change Communication Strategy (NCCCS), by WFP marks a critical milestone towards this realization. The NCCCS accentuates the linkages between climate change and food and nutrition security. It seeks to refine climate communication messaging to be more relevant to the current development context and needs of various stakeholders and user groups, thus promoting partnership approaches. The integration of IKS in climate services is a key entry point to striking the communication balance between the information service providers and the end-users, with the ultimate result of informing livelihoods decision-making processes and timely action. The NCCCS objectives and guiding principles are in harmony with the requirements of this step and create a sustainable platform for its communication messaging.

Monitoring and Evaluation pillar in STEP 5 is a continuous process which periodically checks whether the set objectives of a particular plan, strategy, or project are being met through tracking specific tasks, applying a pre-determined framework which enables one to identify what works well and what areas require the necessary adjustments. Therefore, M&E process enables the implementation of adaptive management by decision-makers as new information becomes available. As such, in the current context monitoring and evaluation would also focus on measuring the results of climate services delivery so that necessary adjustments can be made during implementation of the process. It is through M&E process that valuable lessons learned are picked, documented and assimilated to ensure effective knowledge management and learning. In view of the above considerations, as well as the

outcomes of the study interviews and consultations, the following potential barriers to the uptake of climate services in Lesotho are identified and the possible solutions are proposed as captured in the table below:

Potential barriers	Possible solutions identified
Ambiguity of climate services messaging: Most people do not understand forecasting language e.g. probability, intensity, spatial rainfall distribution, etc., leading to lack of trust in the information and low utilization of CIS to inform disaster risk preparedness & climate resilience	Demystifying the terminology and meanings used in climate services communication is highly recommended. Increased awareness of climate services is a fundamental pre-requisite for creating a shared understanding. Therefore, with improved awareness, information acceptance, uptake and use (to inform decision-making), becomes very easy.
Top-down approach to climate services communication	To promote user-centric and demand-driven climate information services development and delivery. This will ensure effective access mechanisms that enhance uptake and enable timely action to build climate-resilience. Unless service providers understand the needs and aspirations of the end-users (e.g. vulnerable farmers), climate services communication runs the risk of missing the target in their messaging.
Silo approaches to climate action and climate information communication	Promotion of partnership approaches at multiple levels: globally, regionally and nationally, including between and across institutions and beneficiaries at the local level. This helps to avoid duplication of efforts and ensure a systematic approach to climate services communication. The development of the NCCCS, as well as the establishment of the National Climate Change Committee (NCCC) in Lesotho, demonstrate a good example of harmonized approaches towards climate resilience. Agriculture-oriented climate action efforts supported this way will contribute immensely towards improved food and nutrition security in the country.
The perceived inherent shortcomings in the accuracy of climate information disseminated	The Lesotho Meteorological Services in particular should invest more in technical and technological capacity required to improve the accuracy of climate modelling, downscaled climate projections and weather & climate forecasting. Partnership approaches are necessary to achieve this goal. For example, it should be mandatory for all major climate action projects to invest in the installation of automatic agro-meteorological weather stations in their project areas, to help broaden the network coverage and monitoring capacity of LMS. This will enable LMS to provide location-specific weather and climate forecasting. The study respondents emphatically echoed this sentiment as it would help them in making informed decisions relating to crop & livestock production and achieve overall food and nutrition security.
Bottlenecks associated with poor mobile and or radio communication network coverage: Many of the remote areas have poor network coverage and do not get weather forecasts through SMS, radio, etc.	The Government of Lesotho through the Lesotho National Broadcasting Services and mobile network operators to broaden their network coverage, targeting the remote areas that are difficult to reach with services. Also, to explore other communication channels that can easily be accessible by communities in these remote areas.
Lack of knowledge of written communication, so early warning system messages can be missed	Various approaches identified in the national climate change communication strategy should be used to reach out to all segments of information end-users.

(Source: the above table has been taken verbatim from the report, and is based on study data, 2024)

Lessons Learned: Indigenous knowledge system plays a major role in supporting livelihoods decisions. It is crucial to informing local efforts to forecast and make sense of weather systems and seasonal climate scenarios at a local scale. However, progressive loss of indigenous knowledge threatens the ability of vulnerable farming communities in Lesotho to cope with and adapt to the impacts of climate change. The challenge ahead is finding ways of integrating indigenous knowledge with the scientific knowledge to enhance the output of weather and climate forecasting models and systems (CCAFS, 2017). The study has established that different indigenous knowledge system indicators used in weather and climate forecasting across the project areas have varying levels of acceptance depending on their precision. The reliability of these indicators is further compounded by the increasing uncertainties in weather and climatic patterns due to climate variability and climate change. These uncertainties are witnessed through shifts in the seasonality of weather events and the increase in frequency, intensity and timing of extreme weather events. Therefore, these undermine the level of confidence that local communities have in the application of indigenous knowledge system in weather and climate forecasting. As such, some of the emerging challenges facing indigenous knowledge system in weather and climate forecasting include among others: i. Insufficient documentation of the knowledge base; ii. Poor knowledge transfer systems; iii. Very limited knowledge amongst the youth, with knowledge bearers being the elderly; iv. Lack of coordinated research to investigate its accuracy and reliability; v. Loss of indigenous knowledge bearers and experts due to old age and death; and vi. The influence of religion and modern education on IKS. Therefore, the recommendations which the study advances seek to address some of the major barriers that have been identified as impediments to the widespread uptake and use of indigenous knowledge system. Focus shall be placed in the areas of strengthening weather and climate forecasting systems and integrating indigenous knowledge system with scientific evidence to inform decisions that enhance local livelihoods and build climate resilience.

Recommendations: Based on the study outcomes, the following set of recommendations are advanced with a view to outline processes and steps that are necessary to drive the integration of IKS into scientific weather and climate forecasting. This will contribute towards enhancing the understanding of local knowledge and beliefs on climate change and promote the acceptability of climate information services to the local communities. Effective integration will also strengthen the robustness of climate-related anticipatory action, aimed at enhancing the adaptive capacity of the highly resource-dependent and vulnerable farming communities in Lesotho. Ultimately, this will culminate in addressing food and nutrition security for the vulnerable population:

i. Recognizing the important contribution of IKS in weather and climate forecasting at a local level context (community level), it is recommended that LMS, as the CIS service provider in Lesotho, adopts the proposed roadmap of steps (outlined in section 6.1 above), towards integrating IKS into scientific weather and climate forecasting;

ii. Applying highly participatory and consultative approaches, the CIS service provider is recommended to co-develop a long-term monitoring protocol, involving the communities at an appropriate scale, to monitor relevant IKS indicators agreed upon. This will be critical to establish the necessary correlation between IKS developed trends and the scientific models output used in weather and climate forecasting by LMS. At this level, the necessary structures (community-based monitoring focal points) and partnership agreements must be in place, to govern the partnership. This will facilitate joint planning, development of necessary tools and execution of essential integration processes;

iii. Implement the monitoring plan in partnership with the established community-based monitoring focal points. The data collected through the monitoring process shall inform the development of trends (input factors for models recalibration);

iv. The CIS service provider is further recommended develop and implement a continuous capacity building programme aimed at addressing any gaps that may affect the operations and sustainability of the monitoring plan. The service provider shall apply adaptive management approaches to maintain the operational effectiveness of the partnership structures established;

v. It is also recommended that the CIS service provider sets up a Correlation Task Force made up of experts from LMS Climate Change Section and Weather Forecasting Section to spearhead the task of analysing the relationships between the collected IKS monitoring data versus the scientific forecasts and the actual weather conditions experienced. Data analysis and validation processes are a key factor at this stage;

vi. The much anticipated calibration of the Weather Research and Forecasting (WRF) model with validated IKS parameters is foreseen to be executed at this stage, led by the Correlation Task Force experts who will provide subject matter specialist analysis and recommend a way forward;

vii. Moreover, it is further recommended that the service provider maintains close operational liaison with the community structures in co-developing climate information messaging and in disseminating the information broadly using all available communication channels already in use. Broadening the partnership agreements with the various media houses and network service providers to ensure timely and frequent dissemination of climate information services to the general public is recommended. This will ensure effective CIS and early warning systems communication;

viii. In addition, it is envisaged that the integration of IKS into scientific weather and climate forecasting will require substantial resources to translate into action. Therefore, it is recommended that a sustainable financing mechanism be developed to support this initiative in the long term. It is therefore recommended to include IKS agenda in the national fiscus and policy discussion, forming part of cultural heritage promotion;

ix. The fact that a significant percentage of local communities in all the study districts confuse the probability of a rainfall event with the amount of rainfall that could be expected remains a challenge. Therefore, they end up not trusting the information received due to this misconception. This highlights the need for the Lesotho Meteorological Services (LMS) and its partners to reinforce the robustness of their community outreach and training programmes;

x. Broadening the geographical scope of this study to cover the highlands areas of Lesotho is highly recommended. This will create a holistic understanding of the situation in all the agro-ecological zones in which WFP operates, thereby informing the future climate-related humanitarian programming in the country;

xi. Establish a joint IKS Research and Development Forum linking various stakeholders such as the IKS bearers, community-based institutions such as the Traditional Healers' Associations, LMS, the Department of Culture, DMA, Higher Learning and Research Institutions and the Local Authorities etc., to spearhead planning processes, research agenda development and knowledge management;

xii. Noting that IKS is orally passed down from generation to generation and is never documented, the knowledgebase is at risk of being gradually lost because IKS bearers sparingly share this information. Therefore, it is recommended to establish appropriate platforms for IKS knowledge transfer, noting the sensitivity of certain IKS "trade secrets" while creating general awareness of IKS in weather and climate forecasting. Necessary information dissemination protocols are to be developed and can actually piggyback on the National Climate Change Communication Strategy to translate into concrete action;

xiii. To pioneer the engagement of youth as champions of disseminating weather and climate information services. This will contribute towards reduction of youth unemployment. Also, people who are in positions of influence and command dignity within society should be used to disseminate climate information services (e.g. Priests, Nurses, the Police, Teachers, Chiefs etc.);

xiv. To improve access to the uptake of climate information services, there is need to broaden the reach of daily weather forecast bulletin and four-day weather outlook issued by LMS through various means. For example, on the LMS webpage, subscribers could be prompted to register their email addresses through which bulk email climate information messages are communicated. Also, partnership agreements with mobile network operators to issue bulk SMS to all users for seasonal climate forecasts and critical early warning system messages;

xv. To promote and expedite the implementation of impact-based forecasting so that each citizen gets location-specific weather and climate forecasting information which will allow them to take informed decisions relating to their livelihoods;

xvi. Mobilize the necessary support (technical, technological and financial), to introduce a locally calibrated weather forecasting App;

xvii. Create necessary information feedback-loop platforms such as toll-free numbers, social media avenues and web-based communication platforms that will receive feedback from the end-users of climate services delivered. This is necessary to inform the service providers of the effectiveness of climate services provided; and

xviii. Carefully planned and deliberate action should be taken to bridge the gap between science and IKS through designing and implementing appropriate community outreach programmes and targeted training and capacity building campaigns targeting the vulnerable local communities. The National Climate Change Communication Strategy presents an excellent window of opportunity for this training programme to be anchored on, taking advantage of the partnership approaches that the strategy advocates for. This will contribute immensely towards harmonizing approaches towards the implementation of the National Climate Change Policy 2017 – 2027.

Annex 11. Estimated number of beneficiaries in IACoV Phase II

				IACoV PHASE II ESTIMATED NO. OF DIRECT PROJECT BENEFICIARIES			INDIRECT BENEFICIARIES	All Community Members		Youth (age 18-35) = 40% of community members		Children (age 5- 11) receiving education inprimary schools = 11% of community members		Children (age 12- 17) receiving education in secondary schools = 19% of community members	
District	**Community Council**	**NAPA Area Classification**	**Total population**	No. of people receiving cash transfers, inputs and technical assistance, (Category A)	No. of people receiving inputs,and technical assistance (Category B)	No. of people benefiting from assets, technical assistance on CS, FS, NUT (Category A+ B).	No. of people indirectly benefiting from assets, technical assistance, awareness raisingon CS, FS, NUT (Category C)	**Male**	**Female**	**Male**	**Female**	**Boys**	**Girls**	**Boys**	**Girls**
Mafeteng	Makoabating E05	ZONE I	12900	1600	2709	4309	8591	2068	2241	827	896	613	664	588	637
	Qibing E07	ZONE I	14300	1600	3003	4603	9697	2209	2394	884	957	680	736	652	706
	Tsana-Talana E06	ZONE I	10800	1600	2268	3868	6932	1857	2011	743	805	513	556	492	534
	Sub-Total		**38000**	**4800**	**7980**	**12780**	**25220**	**6134**	**6646**	**2454**	**2658**	**1806**	**1956**	**1733**	**1877**
Mohale's Hoek	Khoelenya F03	ZONE I	13000	1600	2730	4330	8670	2078	2252	831	901	618	669	593	642
	Lithipeng F04	ZONE I	7300	1600	1533	3133	4167	1504	1629	602	652	347	376	333	361
	Mashaleng F02	ZONE I	9400	1600	1974	3574	5826	1716	1858	686	743	447	484	429	464
	Senqunyane F07	ZONE I	6600	1600	1980	3580	3020	1718	1862	687	745	314	340	301	326
	Siloe F01	ZONE I	15700	1600	4710	6310	9390	3029	3281	1212	1312	746	808	716	776
	Thaba-Mokhele F05	ZONE I	16200	1600	4860	6460	9740	3101	3359	1240	1344	770	834	739	800
	Urban	ZONE I	36200	1600	10860	12460	23740	5981	6479	2392	2592	1720	1864	1651	1788
	Sub-Total		**104400**	**11200**	**28647**	**39847**	**64553**	**19127**	**20720**	**7651**	**8288**	**4961**	**5375**	**4761**	**5157**
Quthing	Mphaki G05	ZONE I	10100	1600	2121	3721	6379	1786	1935	714	774	480	520	461	499
	Qomoqomong G02	ZONE I	11500	1600	2415	4015	7485	1927	2088	771	835	546	592	524	568
	Telle G04	ZONE I	9400	1600	1974	3574	5826	1716	1858	686	743	447	484	429	464
	Tosing G03	ZONE I	8200	1600	2460	4060	4140	1949	2111	780	844	390	422	374	405
	Sub-Total		**39200**	**6400**	**8970**	**15370**	**23830**	**7378**	**7992**	**2951**	**3197**	**1863**	**2018**	**1788**	**1936**
Thaba-Tseka	Urban	Zone I	17100	1600	3591	5191	11909	2492	2699	997	1080	813	880	780	845
	Bokong K04 (Setoetoe)	Zone I	10200	1600	2142	3742	6458	1796	1946	718	778	485	525	465	504
	Bokong K04 (Maanela)	Zone I	11200	1600	2352	3952	7248	1897	2055	759	822	532	577	511	553
	Bokong K04 (Makhulen	Zone I	8700	1600	2610	4210	4490	2021	2189	808	876	413	448	397	430
	Sub-Total		**47200**	**6400**	**10695**	**17095**	**30105**	**8206**	**8889**	**3282**	**3556**	**2243**	**2430**	**2152**	**2332**
	Total for the four districts		**228800**	**28800**	**56292**	**85092**	**143708**	**40844**	**44248**	**16338**	**17699**	**10873**	**11779**	**10433**	**11303**
Other 6 six districts under component 1 and 2 (80,000 students from formal primary and high schools and non-formal structures: 15,000 herders)					**15000**									**38400**	**41600**

All Basotho with mobile phone/radio in 10districts							1109760	532685	577075	443904	443904				
	OVERALL TOTAL		228,800	28,800	71,292	100,092	1,253,468	573,529	621,323	460,242	461,603	10,873	11,779	48,833	52,903

Beneficiary table notes

1. **Category A** are the most vulnerable beneficiaries with severe food insecurity. They will receive cash transfers in exchange for their work on community assets. Beneficiaries will rotate after 3 month cycles of work. While the cash transfer is designed to assist people to cope during the lean season, the timing of the work will depend on several factors, including when people are available, the seasonality of farming activities, and the optimal time for the activity. For example, earth dams will be constructed during dry periods of less rainfall. The CBT beneficiaries will be selected from the more food-insecure households. As noted on page 14 of the proposal, the particularly vulnerable groups identified for inclusion in the project are female-headed households, herders, poorer households, people living with disabilities (PwD), people living with HIV/AIDS, and young mothers. As many of these groups as is feasible will be included as CBT beneficiaries. However, in the case of herders, they have other animal herding responsibilities which usually preclude them from more labour-intensive asset creation activities. Therefore, a specific package of interventions to benefit herders has been developed (see page 40), which does not rely on CBT-related activities. Child care will be provided to allow young mothers from food-insecure HHs to benefit from CBT, as implemented in phase I. Amongst the food insecure HHs, those with people with disabilities will be prioritised for participation in CBT activities. The standard work norms that allow lighter works allocated to women will be used. However, in most cases, an able-bodied member of the HH would carry out the asset creation work, on behalf of the person with disabilities. People living with HIV/AIDS who are on antiretroviral treatment are usually able to participate in CBT-enable asset creation. In summary, the Category A beneficiaries for CBT include male and female smallholder farmers, youth, HHs with people with disabilities, and those from the other identified disadvantaged groups. 60 percent of the CBT beneficiaries will be women, and 40 percent will be youth.
2. In total, there are 164 community councils and 2 urban councils targeted for phase II. Each council will have one designated sub-catchment as the project site, with the exception of the Bokong council in the Thaba Tseka district. Due to the challenging terrain and the fact that the administrative boundaries for the three sub-catchments fall under different principal chiefs, there will be three distinct project sites within the Bokong council. This approach incorporates the necessary protection principle that beneficiaries should walk less than one hour to the project sites.
3. In each project site in the 186 councils, activities will be implemented according to work norms, with close supervision by the extension staff, with 2 cycles of three months each of work per year for provision of cash-based transfers (CBT).[301] The caseload has been allocated equally for the 186 sites.
4. The activities will differ according to the challenges identified in the Community Action Plans (see Component 3); however, in each site, a total of 50 households will be enrolled for the 3-month cycle of work. There will be a different set of beneficiaries for each cycle of work for the 4 years of CBT implementation.
5. The cumulative number of households receiving the CBT is 28,800 (with one CBT beneficiary per HH); cash transfers will be provided to the vulnerable food insecure households participating in the creation of productive assets from October to March (6 months with two 3-month cycles of work) each year. The average size of each household is 4, based on findings of previous FFA interventions.[302] Thus the total number of direct beneficiaries in Category A is 28,800 x 4 = 115,200.
6. The entitlement value for each participant/worker has been aligned to the standard rate of USD 72 used by the GoL in the public works programme. Thus, the monthly CBT cost is estimated at USD 72 x 1,050 participants = USD 75,600. The final number of households involved in the asset creation work will be determined by the available funds and the volume of work, as specified by the work norms under the public works programme.
7. **Category B** beneficiaries will include smallholder farmers, youth, children, women, people living with disabilities and other community members engaging in education programmes, climate-smart agriculture, water harvesting, vegetable production, etc. as well as apiculture and off-farm livelihood diversification activities at the household level. The population targeted is 30% of the total population with access to land in the community council. The direct beneficiaries of the project in category B will include children aged 5 to 11 years and 12 to 17 years of age enrolled in primary and high schools respectively, as well as herders; these children will receive education on climate change impacts and adaptation as well as technical assistance

[301] There will be a different set of beneficiaries in a six month period, i.e. 1 household in the first three months and a different household in the succeeding 3 months.
[302] On average, one project site will benefit up to 8 villages, including at least 500 households with 5-8 members in the mountainous district of Thaba-Tseka. However, in the interests of not overstating the total direct beneficiaries, the project team has used a HH size of 4 across all districts.

through formal and informal education structures. Children will not participate in the CBT activities and are excluded from labour related activities but will benefit from awareness raising and educational activities under Outcome 2.2. Thus they will not be Category A beneficiaries, but will fall under Category B. As part of the school climate change and nutrition clubs (activity 2.2.1.d.), each club may choose to implement some small-scale environmental education related activities, such as climate-resilient vegetable gardening. In such cases, this would be on a similar basis as a school science project, only older children (above the age of 15) would be involved, and any gardening would be entirely on a voluntary basis.

8. **Total number of direct beneficiaries**: Category A and B beneficiaries, of whom 40% will be youth, will benefit directly from the resilience assets created by the project in the four districts to enhance community and household resilience to climate change. The total number of direct beneficiaries is estimated at 186,492.
9. **Category C** beneficiaries are those indirect beneficiaries in the 4 districts who will indirectly benefit from community assets and the multiplier effects of the best practices copied from the households and communities participating in asset creation. The early warning/early action, climate services, and awareness creation activities will target the entire population in the 16 community councils and all Basotho in other councils in the targeted four districts. The project team has used each council's most conservative population size. The total Category C beneficiaries are estimated at 143,708, or 60% of the total population in the four districts who use mobile phones.
10. **Category D** beneficiaries are those indirect beneficiaries in the remaining 6 districts of Lesotho who will benefit from the national-level climate change awareness raising strategy, and the drought EW and climate services activities, for which a proxy is those people who use a cell phone and could consequently receive EW messages and climate services via their phone, as well as receive CS,FS, GEN and NUT messages. The national cell phone usage in Lesotho is estimated at 60% of the total population of 2 million. This equates to 1,109,760 people in the remaining six districts, where asset creation is not being implemented.
11. Total number of indirect beneficiaries: Category C + Category D represents the estimated total number of indirect beneficiaries, which is 143,708 + 1,109,760 = 1,253,468.
12. Using national demographic data, males constitute 48% of the population while females constitute 52% of the total population. Youth (18-35) constitute 40% of the total population. The project will target 60% female beneficiaries (comprised of adult females over 35 and female youth) and 40% youth.
13. Graduated sites from phase I: Phase II will cover 60% (12 out of 21) of the project sites targeted in Phase I in the three southern districts. Consequently, 40% (9 out of 21) of the project sites from Phase I will not receive CBT in Phase II, as they are considered to have graduated – i.e. HHs in those sites are largely no longer highly food insecure and have higher levels of self-reliance and adaptive capacity. The project will employ a pass-out[303] gradual model biannually for category A and B. Such a model will use a mix of services and support tailored to individual needs and provide a structured pathway out of poverty by addressing both immediate needs and long-term development goals, helping individuals to "graduate" from dependency to self-reliance.

Annex 12. Sustainability provisions for all concrete outputs

Outputs	Social sustainability	Environmental sustainability	Institutional sustainability	Economic sustainability	Financial sustainability
Component 1: Institutional capacity and systems building for impact-based forecasting, anticipatory action, and gender-responsive last mile climate services					
Output 1.1.1: Upgrade systems and human capacities to enhance accuracy of S2S forecasting for rainfall and temperature	Enhancing accuracy of forecast is an essential input into the development of IBF, further development of AA, and LMCS; all of these elements will strengthen EW and climate services to reduce social upheaval resulting from climate risks.	An enhanced S2S forecast is crucial to underpin the environmentally sustainable nature of the integrated approach to resilience building of the project, including concrete adaptation assets under Component 3. All ESS procedures	The output will promote institutional sustainability of LMS and of the project actions, by enhancing capacity for S2S forecasting and HPC operations and maintenance. No new structures will be created within LMS, which is a stable institution.	Designing and implementing a maintenance package for different types of AWS will promote operational and thus economic sustainability of observations network.	Enhancing accuracy of forecast is an essential step in the longer-term pathway of developing financial sustainability for LMS climate services functions.

[303]The Pass-Out Livelihood Graduation Model is aimed at lifting individuals or families out of poverty by equipping them with the necessary skills, resources, and support to achieve sustainable livelihoods.

		will be followed for the installation of the AWS.			
Output 1.1.2: Develop impact-based forecasting for temperature and rainfall to improve climate services	IBF will significantly enhance the uptake and action on climate services provided, thus promoting social goals. The IBF will then be piloted in the project areas with monitoring and feedback to assess and enhance accuracy and address any social sustainability concerns.	Implementation of IBF can be expected to enhance environmental sustainability as it enables better preparations for predicted climate risks.	The IBF system will enhance coordination across LMS and other climate services stakeholders. It will provide a channel through which institutions such as LMS, DMA and MAFSN can be strengthened through stronger functional collaboration.	Once the conditions have been created for a functional IBF system through project support, it is expected that running the system will be economically sustainable. The project will advocate for enhanced allocations from the fiscus to ensure this is maintained post-project.	As for economic sustainability.
Output 1.1.3: Enable GoL innovations to generate revenue for sustainability	Pilot activities such as Climate Marathon will generate enhanced awareness and social cohesion on climate change.	Any activities to be piloted will be designed to be zero waste and to promote environmental sustainability and will be screened prior to being conducted, via the project's ESS and ESMP procedures.	No new institutions / structures will be created. Output aims to enhance sustainability of LMS as an institution.	The return on investment for piloted actions is expected to be significant as aim is to enhance LMS revenue generation.	Entire purpose of output is to contribute to financial sustainability for LMS in the future.
Output 1.2.1: Scale out the anticipatory action for drought system to all 10 districts	There is strong ownership of the AA system developed under phase I and the AA response promoted social cohesion and reduced social risks in the 4 districts. Phase II activities will deepen these positive effects and further promote social sustainability.	Lessons learned from phase I operations on the AA system for drought will be designed to consider environmental sustainability considerations of the AA response. The findings will be integrated into phase II design during inception, so that scaling out AA further promotes environmental benefits.	There is strong ownership of the AA system for drought developed under phase I on the part of DMA and participating SHs. Phase II will harness this and extend it to the 1o districts to deepen the institutional sustainability. Output 1.2.2 is designed to further promote institutional sustainability.	Regular AA lessons learning and refresher training sessions that integrate the CC/FS/GEN/NUT nexus at district and national level will assist	Financial sustainability of the national AA system will be promoted through the activities of output 1.2.2.
Output 1.2.2: Support development of gender-responsive national multi-hazard AA system	Activities under output 1.2.2 will draw together and synergise ad hoc work on AA supported by different projects, to develop a coherent AA system that is gender-responsive. Social cohesion will be furthered through	No environmental sustainability concerns. Environmental sustainability will be mainstreamed into the gender-responsive national multi-hazard AA system.	Output 1.2.2 is designed to further promote institutional sustainability of the national AA system and includes a study to prioritise national government and private sector funding opportunities for this purpose.	Output 1.2.2 specifically targets economic and financial sustainability of the national AA system, including identifying national government and private sector funding opportunities to remove dependency on donor funds.	Output 1.2.2 specifically targets financial sustainability of the national AA system, including identifying national government and private sector funding opportunities to remove dependency on donor funds.
Output 1.3.1: Gender-responsive last mile climate services developed and disseminated on an ongoing basis	Dissemination of climate services will proceed through socially acceptable sensitisation and dissemination activities, building on local cultural practices. This, together with the increased accuracy of the climate services, is expected to promote the social sustainability.	Climate services will be delivered together with agricultural advisories. All agricultural advice will be based on an environmentally sound production approach and thus is expected to enhance environmental sustainability of agricultural production in the project areas.	The project will not create any new structures but will support and strengthen existing initiatives on climate services and will enhance the existing system under the LMS and MAFSN. This system is a part of normal government operations and is institutionally stable.	The project will not create a new system of climate services but will enhance the existing system under LMS and MAFSN. The GoL is committed to providing climate services on an ongoing basis at no cost to smallholder farmers and allocates sufficient budget for this. In due course, post-project, it might be	As for economic sustainability. In addition, support to digitalised dissemination is expected to reduce the costs of dissemination while also expanding the outreach for the LMS and MAFSN. Activities under Output 1.1.3: will enable LMS to generate revenue for sustainability in the future.

				possible to commercialise climate services for commercial farmers.	
Component 2: Systematic gender-responsive awareness raising and communication on climate change impacts and adaptation					
Output 2.1.1: Strengthened national and district level institutional structures and systems for climate change awareness raising and communication	The project will train ministries, extension officials, and community leaders and influencers, on implementing sensitisation strategy; this will ensure that activities are socially and culturally appropriate, leading to ongoing social acceptance for the sensitisation. Activities will be delivered by harnessing cultural capital in a respectful manner.	The sensitisation activities will not have any environmental impact. The process to identify and empower climate champions will not have any environmental impact, but rather is likely to promote the dissemination and uptake of environmentally sustainable farming methods.	Training of LMS and NCCC on further development and operationalisation of climate change awareness programme will ensure they can sustain this post-project. Ongoing training for secondary SHs in the NCCCS will allow them to continue their designated roles without external support, and to deliver their own training for new staff, to ensure institutional sustainability.	The sensitisation activities will have a net economic benefit, in that for a small initial investment, there will be a large ROI - for climate awareness across the country as a whole, as well as at the household level for smallholder farmers, in terms of increased resilience and income from enhanced climate risk management and deployment of adaptation actions.	While the project will initially provide the funds for the sensitisation activities, it is expected that by the end of the project, the GoL and private sector will have been able to take over funding of the sensitisation process, as this will generate business returns in the form of reduced climate risks for business and reduced expenditure on social protection and emergency response for the GoL.
Output 2.2.1: Deepen and scale out teacher training and school climate change activities	Deepening CC education activities to include the CC-FS-GEN-NUT nexus will result in strengthened holistic understanding of scholars at formal and non-formal institutions of the social interlinkages, so they can play a role in social awareness raising in the future. School IGAs will have positive nutrition benefits.	There will be no negative environmental impact related to output 2.2.1. On the contrary, environmental sustainability is likely to be enhanced through vegetable gardening and small-scale afforestation at schools. All USPs will be screened and any potential impacts mitigated.	Extending the climate change educational activities to non-formal institutions like initiation schools will allow these institutions to provide valuable life skills and livelihoods training to e.g. herders. Schools will be assisted to develop IGAs, as well as climate and nutrition clubs, to enhance the institutional offering.	The CC educational activities will have a net economic benefit, in that for a small initial investment, there will be a large ROI - for climate awareness for future generations, as well as at the school level, in terms of increased resilience and income from enhanced climate-resilient adaptation actions and IGAs.	As for economic sustainability. IGAs implemented at schools could enhance the financial situation at the institutions.
Output 2.3.1: Develop and implement learning, knowledge management, and communication strategy	The L, KM&C activities will support regular SH engagement meetings and knowledge sharing through a range of channels, including peer-to-peer learning. These forums for sharing within and between the project districts, to promote farmer-to-farmer learning, farmer/researcher/ extensionist learning, and cross-district learning, as well as with the agricultural system, can be expected to promote the generation of social capital as experiences are shared and bonds created between groups.	Implementation of the learning, knowledge management and communication strategy will not have any adverse environmental impacts. Rather, the project's environmentally sustainable approaches will be shared through the L,KM&C activities.	The L,KM&C activities are essential to generate evidence of the effectiveness and economic return of the project's activities, to promote institutionalisation of project activities. Modalities include the roadmap for LMS financial sustainability, more coherent climate risk financing, and a climate adaptive land restoration strategy, to enhance social protection sustainability. The training programmatic approach is an essential step to build GoL capacities and systems for sustainability.	The L,KM&C activities will be essential in generating evidence of the effectiveness and economic return of the project's activities. Knowledge products developed will be shared and used in advocacy, including under Component 3's activities to develop the climate-integrated land restoration strategy.	The L,KM&C activities will require a small percentage of the project's budget that will be essential in generating evidence of the effectiveness and economic return of the project's activities, as well as the need to develop a clear roadmap to deepen the financial sustainability of LMS, a more joined-up approach to climate risk financing, and a coherent climate adaptive and livelihoods enhancing land restoration strategy that integrates CC/FS/GEN/NUT, linked to social protection system.
Component 3: Building resilience through community-based adaptation measures to strengthen food systems					
Output 3.1.1: Participatory community	The project will continue to use the good CBPP practice of phase I, which is a socially and culturally	The local adaptation planning process will be designed to incorporate local environmental	The main driver for the enhanced local adaptation planning will be the district administration, the	Effective, participatory local adaptation planning will assist farmers to enhance the resilience of their	The existing local adaptation planning process will be enhanced through small financial inputs from

adaptation plans developed	acceptable process co-designed with local community leaders and marginalized groups. It is designed to reduce the demands on time-stretched rural inhabitants, while still harnessing their perspectives and enabling them to plan proactive adaptation strategies.	challenges and opportunities, as well as localized climate risks in the present and as anticipated in the future. Participants will also be assisted to select from a range of climate-resilient agricultural approaches and technologies that will reduce pressure on the environment.	planning department, and the District Project Implementation Teams (DPITs). As the project will build on and enhance these existing structures and processes for local level planning, there is a strong institutional basis; TA will be provided to scale out the approach.	livelihoods and increase their incomes from farming by selecting appropriate adaptation actions and implementing these in a participatory fashion. This will generate economic returns for farmers, and enhanced economic activity in the project districts, which will be tracked and reported on by the project.	the project, which are expected to result in more efficient and effective local planning processes that will be continued by the district administrations. The GoL is already requiring other projects to use the CBPP process; thus this approaching is already being scaled up beyond the project.
Output 3.1.2: Community and HH-level nutrition- and gender-sensitive productive assets developed to support climate risk reduction and adaptation	Extension staff will be on a recurring basis to develop practical skills on climate-resilient agriculture to increase farmers income. Through this process, extension officials are likely to have increased respect and develop more social capital in the project areas. The activities to further empower lead farmers and youth agricultural entrepreneurs to be climate advocates for increasing farmers' income through risk layering will assist with the social acceptability and thus social sustainability of the activities for adaptation assets and enhanced climate-resilient production.	The individual and community activities on adaptation assets and climate-resilient agricultural approaches and technologies are not expected to have any environmental impact. On the contrary, these approaches, that will incorporate SLM, soil fertility management, conservation agriculture, GAPs, and enhanced water availability through for example household rainwater harvesting, will enhance environmental sustainability in the project areas. All ESS and ESMP procedures will be followed to promote environmental sustainability.	Existing climate-resilient agricultural support in the project districts, delivered through the existing system of MEF and MAFSN that involves the ARCs and district extension services will be consolidated and enhanced through the programmatic approach to training developed for the extension services. Thus the project will add value to the existing extension system and help it to function better. This is likely to enhance the institutional sustainability of the agricultural extension services. Implementation agreements will be developed with the MAFSN and MEF on the ongoing operation and maintenance of the national and district seed banks.	The project will develop a recurring extension training approach to develop practical skills on climate-resilient agriculture and will advocate for its adoption by MEF and MAFSN. Implementation of this enhanced extension strategy prioritising climate resilience and low-cost methods with demonstrated cost efficiency and return on investment (via the CBA study of phase I) will generate economic returns for farmers. In time, enhanced extension and increased farmers' income may allow for some extension services to be provided on a cost sharing basis, but not during phase II, given high poverty and vulnerability.	In some cases, once farmers have received the training for specific technologies, they will be able to continue with these without the necessity for further external financial support – for example, through the implementation of GAPs and conservation agriculture and through preparation of effective homemade fertilisers. Nevertheless, ongoing training to farmers will be provided by the extension officers in the districts as part of their normal, budgeted functions, and no further financial inputs will be required. This will be underpinned by the project's advocacy for ongoing capacity development for the extension services.
Output 3.1.3: Entrepreneurial opportunities promoted and market linkages established for climate-resilient value chains to promote gender equality	By supporting existing groups, their social cohesion will be enhanced. Support to new groups and individual businesses will be implemented in a socially and culturally sensitive manner, through experienced NGOs. All activities will be gender-responsive.	The project will only support small agribusinesses under output 3.1.3 that are based on environmentally sound and climate-resilient production and processing, thus promoting environmental sustainability in the project areas.	Business development support and increased access to financial services and credit is critical to strengthen the institutional sustainability of small rural businesses. These services, as well as market linkages support, will also promote sustainability of aggregators.	Stronger support for entrepreneurial opportunities with associated support for market linkages is considered essential for promoting economic sustainability of farmers' livelihoods in the rural areas.	Output 3.1.3 will promote financial sustainability for small rural business for farmers, youth, and groups, through business development support, increased access to financial services and credit; better market linkages will further close the loop for financial sustainability.
Output 3.2.1: Policy advocacy and systems development to support gender-responsive and	The gender-responsive and climate adaptive land restoration strategy would represent good proactive practice in social protection, which, if implemented,	Development and implementation of a gender-responsive and climate adaptive land restoration strategy would significantly promote environmental sustainability across the country.	By advocating for the gender-responsive and climate adaptive land restoration strategy, the project would support institutional strengthening, including through	Economic sustainability would be one of the central principles to be integrated into the gender-responsive and climate adaptive land restoration strategy.	Development of the gender-responsive and climate adaptive land restoration strategy would consider the financial sustainability aspect; however, by its nature, social

climate adaptive social protection	should have positive effects on social sustainability.		collaborative functioning, of the MEF and MSP.		protection would need to rely on investment from the central budget.