



ADAPTATION FUND

AFB/PPRC.38/Inf.10
25 September 2026

Adaptation Fund Board
Project and Programme Review Committee
Thirty-eighth Meeting
Bonn, Germany, 19-23 October 2026

PROPOSAL FOR TANZANIA (1)



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA
COMMUNITIES – KARAHADA "

Project Title	Karatu Climate Resilience and Adaptation Project for Hadzabe and Datoga Communities – KARAHADA
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Project ID	AF00000255
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Category	Regular size project (over \$1 million)
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Type	Single country project
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Stage	Fully-developed project
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Country	Tanzania
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Implementing Entity	NEMC
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Financing Requested	USD 2,500,000.00
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Reviewer	Alexandra Munoz
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Co-reviewer(s)	Hugo Paul Bernard Remaury
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IE Contact Person	Fredrick Mulinda,Gabriel Masanyiwa,Rosemary Msoka
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Secretariat's Overall Comment

The Karatu Climate Resilience and Adaptation project for Hadzabe and Datoga communities (KARAHADA) aims to implement activities that enable climate-resilient livelihoods in climate-change-affected areas. The initial technical review raised several issues, such as the lack of a theory of change, adaptation rationale for some components, compliance with the Environmental and Social Policy and Gender Policy of the Fund, duplication of project, the consultative process, alignment with AF's results framework and issues with the budget as is discussed in the number of Clarification Requests (CRs) and Corrective Action

Request (CAR) raised in the review. The second technical review raises several issues, such as ESMP completion, properly addressing USPs, Budget and risk management issues, compliance with the Environmental and Social Policy and Gender Policy of the Fund, cost-effectiveness and sustainability issues among others as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review. The third technical review finds that several issues raised in the second technical review still have not been addressed, such as properly addressing USPs, compliance with Environmental and Gender Policy of the fund, sustainability issues, budget issues, alignment with AF Strategic Framework, among others, as discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review. The fourth technical review raises some issues, such as clarifications for the mid-term evaluation, details in the Gender Analysis, properly addressing USPs, budget inconsistencies throughout the proposal, compliance with the Environmental and Social Policy and Gender Policy of the Fund, among others, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review. The fifth technical review raises some issues, such as the need to revise the document formatting and improve the outcome indicators to ensure alignment with the AF Results Framework, among others, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.

Country Eligibility

Is the country party to the Kyoto Protocol or the Paris Agreement?

Response: Yes

Secretariat: Tanzania ratified the Kyoto Protocol on 26 August 2002 and the Paris Agreement on 18 May 2018.
31 october 2025

Is the country a developing country particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: Droughts and floods are already evident across almost all sectors of the economy, leading to significant economic costs, loss of life, property damage, and other human capital losses. 31 october 2025

Project Eligibility

Has the designated government authority for the Adaptation Fund endorsed the project/programme?

Response: Yes

Secretariat: As per the Endorsement letter dated August 08, 2025 31 october 2025

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?

Response: Pending

Secretariat: Yes. Proposal is 97 pages and the annexes are 61 pages General Note: Kindly correct minimal grammatical errors included as appropriate. Please ensure that the titles in the document are numbered correctly. Kindly also ensure that the annexes are referenced correctly in the text. CR1: Please update the timelines presented in the calendar section on page 15 of the proposal. CAR1: Please delete the extra column inserted in the Project Components and Financing table. Activities are not to be included in the table. 31 october 2025

Response: Pending

Secretariat: CR1: Not Cleared Thank you for the revised document. However, it seems the IE has used or changed the wrong template or altered the template for FP. There is mention of CN in the first page (i.e.: This concept has been submitted before) of the proposal. Also, the layout and formatting are not well done. Please resubmit the FP using the Fund's template which can be found here : <https://www.adaptation-fund.org/document/template-for-fully-developed-single-country-proposal/> CAR1: Not Cleared Thank you for the revised document and deletion of the extra column. However, the FP in clean and track-changes versions are not the same. There are some missing elements in the track-changes version. Kindly correct it and resubmit both versions using same information. 13 January 2026

Response: Pending

Secretariat: General Note: There are some duplications in the titles of some of the sections in the Table of Contents. Please delete where appropriate. The project could also benefit from a final proof reading. CR1: Cleared The document has been realigned with the latest version of the AF proposal format of November 2025. CAR1: Not Cleared There are still some discrepancies between the clean version and revised (track-changes) versions. 19 February 2026

Response: Pending

Secretariat: **Please keep in mind that the comments are based on the track changes version of the proposal** General Note: Cleared. As per information provided throughout the document. There are no duplications, and proofreading appears to have been completed. CAR1: Not Cleared 1. There are still some discrepancies between the clean version and the revised (track changes) version. 2. In addition, please review the consistency of titles. For example, in the annexes section, there are two sections titled 'Annex 3'. 3. Finally, ensure that the numbering of all tables (independently of their section) is sequential. 4. Please ensure that the budget in the components financing table is also presented at output level in the last column. CAR2 (NEW): Please update the project calendar to a date after AFB47. 5 May 2026

Response: Not Cleared

Secretariat: *the track version of the document was used for the review* CAR1: 1. Not Cleared. There are some format issues such as blank tables on pages 119 of the track changes version (same issue in the clean version) and a two photos as part of the content table. Please amend and ensure both versions (Clean and track) are the same. 2. Cleared. Consistency of titles has been ensured. 3. Cleared. All tables are numbered sequentially. 4. Cleared. Please ensure that the budget in the components financing table is also presented at output level in the last column. CAR2 (NEW): Not Cleared. While the project calendar has been properly amended, please include a mid-term review. Please assess whether three months after project closure are sufficient for the terminal

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?

Response: Pending

Secretariat: Yes. However, further clarification is needed. To address drought the project intends to introduce alternative livelihoods, invest in water infrastructure, improve on the management of forests, and reduce the impact of climate on health. CAR2: Please provide a theory of change that clearly articulates the logical pathway from project inputs and activities to the intended long-term outcomes, including the underlying assumptions about how introducing new livelihood options will lead to improved community resilience and well-being. Kindly consider a Theory of Change (and its diagram) structure that use the form of “‘IF’ ‘THEN’” statements. This would clearly state how the project activities would lead to substantial tangible outcomes. CR2: The project will introduce crop and livestock production for a community that are described as hunters and gatherers. How will the project address potential resistance to dietary changes when introducing crop and livestock production to communities with established hunting and gathering traditions, and what measures will ensure cultural acceptability of new food systems? CR3: Given the shift from traditional subsistence practices to market-oriented livelihoods like rabbit keeping and jewellery making, what specific measures will address market access risks including demand uncertainty, transportation barriers, pricing challenges, and the communities' limited experience with commercial activities? CR4: Please list the estimated number of trees to be planted under activity 3.1.3. CR5: Kindly indicate explicitly how the project supports one or more of the Adaptation Fund Strategic Objectives. Currently, the document is not clear about this alignment. CR6: The background information to justify the climate change context and proposed actions are outdated. Please revise the document (Part I) with recent data to support the climate risks, in particular annual rainfall and temperature data (currently up to 2018, ref table 1 and 2) as well as any available projections. CR7: The proposed interventions under component 2, output 1 (At least 10 boreholes drilled in Hadzabe) need further justification of its impact on existing climate risks, in particular how it will impact the availability of water in the future considering the climate context mentioned above. Kindly explain how this is reflected in the identification of risks to comply with the ESP and avoid maladaptation for the vulnerable communities. Please provide information regarding any studies that may exist on borehole drilling in the area. CR8: Under Output 2: Please identify the alternative sources of energy as well as what will be utilized in making the briquettes. Additionally, please make the adaptation case by strengthening the adaptation rationale for cook stoves proposed. CR9: Please rationalize the following sentence under Output 3 at page 20 “ These activities ...” Currently reads as if the NEAP 2020 is promoting the degradation listed in (a) and 9d) just above. CR10: Output 4 page 21 indicated that 8 community centers will be built. Please clarify if any studies have been done that address design as well as cost of those 8 community centers. CAR3: Please clarify the status of the proposed intervention area of Karatu district estimated at about 35,399 hectares. In addition, it is stated that the government has set aside a total of 600 hectares under outcomes 1 but the legal status of the area is not clear. Please justify the compliance of the proposed areas with AF ESP in particular in relations to land tenure and any impact on vulnerable communities and indigenous people. 31 october 2025

Response: Pending

Secretariat: CAR2: Cleared as per revised Theory of Change in figure 1. CR2: Not cleared. Thank for the explanation and information addressing CR2. However, we are not able to find the revised text in the track changes version. Kindly address in both versions and resubmit. CR3: Not Cleared. Thank you for the explanation provided in the review sheet. However, please address the followings: 1- Please reflect the explanation and information share din the review sheet in the main document (FP) and in particular the track changes version which currently does not have any update on this matter. 2- While the explanation provided is sound, please

reflect the proposed measures in the activities and outputs. Some of the mitigation measures can be addressed with set of new activities. 3- How the proposed off-take agreements will be developed and which partners are targeted? CR4: Not cleared. There is a discrepancy between the clean version of FP which mentions 10,000 trees to be planted while the track version indicated that "At least 1500,000 trees will be planted". Also, please clarify the figure of 30,000-40,000 which is listed under benefit. CR5: Not cleared. Thank you for the revised section under the clean version. However, there is no such reference in the track changes version. CR6: Cleared as revised document Part I with recent data. CR7: Not cleared Thank you for the justification and relevant information in the review sheet. However, there is no such reference in the revised documents (both versions). Kindly reflect the changes in the main document and not only in the review sheet. CR8: Cleared as per revised document under output 2. CR9: Cleared as per revised text under outputs 3 that clarifies the objective of National Environmental Action Plan (NEAP) 2020. CR10: Not cleared. Considering the explanation provided in the review sheet, the proposed 8 community centers should be categorized as USPs as per AF policies on USP. Please clarify how the implementation of this activity will be conducted if the design and estimates are still rough and only full design be conducted during implementation. CAR3: Cleared as per revised document under Part I and Part II of the concept note under the sections on land tenure, safeguards, and Indigenous Peoples. 13 January 2026

Response: Pending

Secretariat: CR2: Cleared The revised text now incorporates the requested information in both the clean (pp 13 – 14) and track-changes versions (pp 23 – 24) of the proposal. CR3: 1. Cleared The explanation and information provided in the review sheet have now been incorporated into the main document (FP) and clearly reflected in the track-changes version. (See pp 27 – 29) 2. Not cleared. Although the proposed mitigation measures have been translated into revised activities and outputs, including the addition of new activities where relevant, it is recommended that the Outcomes, Outputs and Activities be numbered in a logical sequence so that they are easily identified and linked with the relevant Component. Thus Outcome 1 of Component 1 is numbered Outcome 1.1 and the Outputs under Component 1, Outcome 1 would be Output 1.1.1 and the Activities 1.1.1, 1, 1.1.1.2 etc. In this way it will also be easier to see the alignment of the various tables. 3. Cleared: Details on the development of the proposed offtake agreements, including the targeted partners and engagement approach, have been added in the narrative under output 5 of Component 1 (pp 28 – 29) CR4: Not cleared The discrepancy has not been corrected. The figures for the number of trees to be planted (30,000-40,000) are not consistent across both the clean and track-changes versions of the FP. The revised track change version has 10,000 trees (page 36) while the clean version has 30,000 to 40, 000 trees (Please refer to pages 21 and 23 of the clean versions of FP) CR5: Cleared The revised section has now been incorporated and clearly highlighted in both track-changes and clean versions of the FP CR7: Cleared The justification and relevant information provided in the review sheet have now been incorporated into the main document and are reflected in both the clean (pp 18 – 20) and track-changes versions (pp 30 – 31). CR10: Cleared The proposed eight community centers have been categorized as USPs. The narrative on how the activity will be implemented through a phased approach has also been clarified. (See page 38 of the revised track change version FP) 19 February 2026

Response: Pending

Secretariat: CR3: 4. Not cleared. While outputs are consistently numbered, please amend the outcomes accordingly. For example, outcomes related to Component 2 are numbered as '1.2' and '1.3', whereas they should be numbered '2.1' and '2.2'. In addition, outcomes for Components 4 and 5 are not numbered. CR4: Cleared The discrepancy has been corrected. The figures for the number of trees to be planted are consistent across both the clean and track-changes versions of the FP. CR10: (re-opened): 1. Please include the USP type/category as per Guidance Document for Project/Programme with Unidentified Sub-Projects. 2.The USP screening form Annex 5 does not account for 5 May 2026

Response: Not Cleared

Secretariat: CR3: 4. Not cleared. Please amend the numbering of the outcomes in Table 4. Outcomes related to components 4 and 5 are not numbered and outcome related to component 3 should it be 3.1. CR10(re-opened): 1. Cleared. As per revised page 26. The proposal states that: "The proposed Community Health Resource Centres are classified as Unidentified Sub-Projects (USPs) under the category of Small-Scale Community Infrastructure in accordance with the Adaptation Fund Guidance for Projects and Programmes with Unidentified Sub-Projects." 2. Cleared. As per revised Annex 5: USP Comprehensive Framework (including screening). 25 august 2026

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?

Response: Pending

Secretariat: Unsure The project targets the vulnerable communities, however information on distribution at household and individual level is limited. CAR4: 1. Kindly list the number of direct and estimated indirect beneficiaries of the project disaggregated by gender. 2. Please ensure that the gender analysis follows the Gender Policy requirements. Please see the 'guidance document for implementing entities on compliance with the Adaptation Fund gender policy' for the gender analysis checklist for a full proposal https://www.adaptation-fund.org/wp-content/uploads/2017/03/AF_GenderGuidanceDocument_Final_15Aug-2022_clean_16Aug-clean-1.pdf CR11: On the economic, social and environmental benefits please: 1. Quantify the economic, social and environmental benefits of the project. 2. Please include measurable targets where possible. 3. Kindly as provide the benefits provided by the project/programme to women, youth and people with disabilities groups. CR12: Under output 1, a total of 1500 beehives are proposed to benefit 10 beekeeping groups of about 20 members each. Please clarify how this distribution is done to avoid any equity issues taking onto account the need to support vulnerable groups and avoid exacerbated negative impacts on marginalized and vulnerable groups. Please elaborate further on the selection criteria of the proposed beneficiary groups. CR13: The selection of beneficiaries under output 3 (10 poultry groups and 10 rabbit groups of 25 members each) is also very unclear. Please elaborate further and ensure compliance with AF ESP and gender policy. CR14: Under component 3, the document states that "For many years, ecological systems in Karatu have been impaired by a combination of both human induced and climate change related drivers". While the proposed interventions seem adequate to restore the ecological systems, it is not clear how the approaches neither the size of the proposed actions will lead to long term restoration of ecosystems for the benefit of vulnerable communities. Please strengthen the document and provide further clarification on the scenarios for ecosystem restoration based on the proposed approaches and activities, including restoration activities of hills, observed bare land, mountainous and woodland systems. CR15: While the document recognizes that past negative practices have severely degraded the ecosystems (ref output 1), it is not clear how the project aims to address the past and ongoing negative impacts. Please clarify how the project will address the community's unsustainable livelihood practices and strategies and how it will lead to long term changes. 31 october 2025

Response: Pending

Secretariat: CAR4: Cleared as per revised document with number of beneficiaries (page 35) and revised gender analysis. CR11: Cleared as per revised document (page 35) with indicative figures for economic, social and environmental benefits. CR12: Not cleared Thank you for the rational for beehive distribution and selection criteria. However, 1- Please reflect these changes and amendments in the main document (both versions). 2- Kindly confirm that the proposed approach has been discussed during stakeholders' consultation and included as part of the proposal ESP and gender assessment. If so, please reflect it in the document. CR13: Not cleared While

the explanation provided in the review sheet is sound, there is no such criteria mentioned in the main document nor the ESP annexes. Kindly clarify and update the project document and ESP annexes as necessary. CR14: Not cleared While the explanation provided in the review sheet is sound, there is no such approach described in the document. Kindly reflect the answer in the main document. CR15: Cleared As per revised document (page 33) with a proposed approach to address past and ongoing negative impacts. 13 January 2026

Response: Pending

Secretariat: CR12: Cleared The rationale for beehive distribution and selection criteria have been included in the revised document (page 44). The approach was discussed during stakeholder consultations as part of ESP and Gender Assessment (see pages 64 to 66) CR13: Not cleared Criteria for selection of beneficiaries are clearly stated in the main document is clear (See page 27) but not in the ESP Annexes. In addition Table 4 in Section 4.0 of Annex 4 does not include the relevant information for the project, instead it simply provides guidance on what information should be included in the table. Please complete the table using the relevant information for the Project. 19 February 2026

Response: Pending

Secretariat: CR13: Not cleared As per information in Annex 4, beneficiaries' section has been amended. In addition, there is a reference to Table 6 of the main project. However, please revise all format as, for example, it appears the following: "AtemplateoftheEnvironmentalandSocialManagementPlantoguideimplementation " CR14: Cleared. As per information provided in Part II.B, pages 21-23. The adaptation approach is included for component 3. It is explained that: "These interventions will restore 600 ha of community-designated land, reduce erosion by 30–50%, improve vegetation cover by over 40%, enhance groundwater recharge, and stabilise degraded slopes". 5 May 2026

Response: Cleared

Secretariat: CR13: Cleared As per revised Annex 4. All format has been amended. 25 August 2026

Is the project / programme cost effective?

Response: Pending

Secretariat: Yes. However, further information is needed. The cost effectiveness of the project is mainly through the project management and operation costs that will be reduced by 25 – 40% through the use of local governments administrative facilities. The project also estimates cost ratios of 27:1500 for concrete actions under the first three components through the use of a localised approach to adaptation as opposed to a top-down approach. However very little of the project approach is quantified and while some description of failed approaches has been given. Aside from the project management, not much is given on alternative interventions to demonstrate why the interventions being undertaken is the most cost-effective approach. CR16: Please include a clear description of alternative options to the proposed measures, to allow for a good assessment of the project/programme cost effectiveness. CR17: Kindly include comparison to other possible interventions that could have taken place to help adapt and build resilience in the same sector, geographic region, and/or community; with quantitative estimates where feasible and useful. 31 October 2025

Response: Pending

Secretariat: CR16: Cleared As per revised document (pages 41-43) with proposed alternative options and measures. CR17: Not cleared Thank you for the justification and explanation. However, please reflect the information provided in the main document and not only in the review sheet. 13 January 2026

Response: Pending

Secretariat: CR17: Cleared See pages 50 – 52 of revised document with Track changes 19 February 2026

Response: Pending

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 august 2026

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?

Response: Cleared

Secretariat: Yes. The proposal has outlined the national strategies including the NDC and the NAPA and lists the relevant SDGs to be strengthened through the project intervention. A detailed table is included in table 3 on Annex 4. 31 october 2025

Response: Cleared

Secretariat: No comments 13 January 2026

Response: Cleared

Secretariat: No comments 19 February 2026

Response: Cleared

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 august 2026

Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?

Response: Pending

Secretariat: Yes, but further clarification is needed. Part II section E of the project proposal is summarised and generally states that the relevant national technical standards and guidelines will be followed. However, table 1 on Annex 4 has a list of the national policies, legislation and strategies which implementation of this ESMP. CAR5: Considering the proposed intervention in the water sector (borehole and water related infrastructure), please revise the section E to include national technical standards applicable for the water related interventions. 31 october 2025

Response: Pending

Secretariat: CAR5: Cleared as per revised Section E (pages 46-47). 13 January 2026

Response: Pending

Secretariat: No comments 19 February 2026

Response: Pending

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 August 2026

Is there duplication of project / programme with other funding sources?

Response: Pending

Secretariat: Unsure. Part II F lists a few projects that the project is learning from and building synergies with. However, while the projects states lack of duplication, some larger national projects that could provide knowledge sharing, synergies, and inform scale up are not listed. CR18: Please clarify how the project will build synergies with the following projects 1. Tanzania Agriculture Climate Adaptation Technology Deployment Programme (TACATDP) USD 200 million by GCF-CRDB Bank Plc. Kindly include the learning and synergies with this intervention that focuses on building agricultural resilience particularly with the KARAHADA project activities that seeks to establish and strengthen agricultural enterprises in the three wards. 2. USD 24M- GCF-UNHCR funded project. Building climate resilience in the landscapes of Kigoma region, Tanzania. Kindly state the learnings and synergies with this project that focuses on village-based ecosystem-based adaptation with component 3 of the KARAHADA project. 3. USD 2.6M World bank Funded project on Promoting Community Led Nature-based Solutions to Climate Change Adaptation in the Usangu Catchment Project with synergies formed on the reforestation and Expanding Access to Safely Managed Water, Sanitation, and Hygiene Services. 4. USD 9M-UNMTPF Systematic Observation Financing Facility (SOFF)- Tanzania and synergies with component 4 KARAHADA project 5. USD 227M World Bank Funded, the Scaling-Up Locally Led Climate Action Program (SCALE)- that also has activities such as community-based and demand-driven activities, such as ecotourism, agroforestry, beekeeping, handicraft making, establishment of community conservation banks, fodder production, reforestation, setting up water-efficient irrigation systems and alternative energy sources 6. The Agricultural Sector Development Programme phase two (ASDP II)- how will project activities build on, compliment and learn from this nation-wide initiative. CAR6: Kindly name all the specific relevant projects and list all the linkages and synergies with all relevant potentially overlapping projects / programmes, including areas of overlap and complementarity, drawing lessons from the initiatives during the project design, learning from their problems/mistakes, and establishing a framework for coordination during implementation. Please consider using a table format for this section. 31 October 2025

Response: Pending

Secretariat: CR18: Cleared as per revised document Section F. CAR6: Cleared as per revised document and table included on pages 48-49. 13 January 2026

Response: Pending

Secretariat: No comments 19 February 2026

Response: Pending

Secretariat: CR32(NEW): Please clarify whether past projects implemented in the intervention regions are related to the proposed project. If so, please include them in Table 8. In addition, ensure the following for each identified programme: • the no-duplication statement should be explicit and clearly justified (e.g., by indicating the distinct geographic locations and/or types of interventions) for each related project identified. • Lessons learned. • Specific synergies and complementarities indicating the outputs of the proposed project. • Are there any other AF projects? 5 May 2026

Response: Cleared

Secretariat: CR32(NEW): Cleared. As per the revised Table 9, the table now includes seven identified projects and provides a justification for no duplication for each one, including lessons learned, synergies, and complementarities. 25 August 2026

Does the project / programme have a learning and knowledge management component to capture and feedback lessons?

Response: Pending

Secretariat: Yes, but further clarification is needed. Some of the activities in component 5 is on dissemination of lessons learned. CAR7: Please strengthen how the project will capture and disseminate lessons as part of the KM in particular in relation to new practices introduced under components 1 and 3. 31 October 2025

Response: Pending

Secretariat: CAR7: Not cleared. While the explanation provided is acceptable, please address the followings: 1- There is no reference to bottom-supposed approach in the revised document (both versions) in particular the details provided in the review sheet. 2- The proposed KM approach is not reflected in the project activities nor a budget associated with it. Kindly clarify. 13 January 2026

Response: Pending

Secretariat: CAR7: Not sure What is a “bottom-supposed” approach? The details referred to in the review sheet were not included in this document neither is the KM approach reflected in the project activities. 19 February 2026

Response: Pending

Secretariat: CAR7: Not cleared. While the reference to a “bottom-supposed” approach is not included now, please ensure the proposal provides the following information: • Which entities will be responsible for tracking the experiences gained, how this will be done, and when the tracking will take place. • Explain how the knowledge generated will be sustained after the project concludes and what arrangements will be needed to support these actions. CR33(NEW): Although KM is presented, it is not clear how KM activities will be funded specifically. Kindly clarify an indicative budget for KM activities. 5 May 2026

Response: Cleared

Secretariat: CAR7: Cleared. As per revised Part II.G. The proposal states that the EE will be responsible for all LKM activities. The knowledge generated will be sustained by being shared with and maintained by the Karatu District Council, the Village Natural Resource Committees (VNRCs), and the water and beekeeping user groups.

CR33(NEW): Cleared. As per revised Part II.G. The proposal states the specific outputs related to LKM activities.
25 august 2026

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?

Response: Pending

Secretariat: Yes, but further information is needed. Two lists of 21 and 17 stakeholders are included in Annex 3, however the list is not disaggregated by gender. It is however stated that gendered consultations were held. Meetings with national stakeholders were had with national level consultation were representatives from Government Ministries and Agencies, Academia and researchers but the details of how many stakeholders or which ministries and agencies or academic institutions is not included. A grievance mechanism is included PART IIIC that addresses the safeguards in place. The project utilised existing grievance mechanism in the government system. CAR8: Kindly ensure that: 1. All the stakeholders involved in the consultation process are identified. For the stakeholders at the target site, kindly include a list of how many men and women participated in the consultations. 2. A description of the consultation techniques (tailored specifically per target group) is also included in the report. 3. Given that this proposal was last submitted in 2022, please present more recent consultation information as priorities etc since 2022 could have changed for the community. CR19: Please include in PART II H, if the consultation process included discussion on the safeguard process and if so, what the outcomes were. The proposal suggests a change in the way of life of hunters and gatherers into farming and other income generating activities, the results of the consultations however do not state if they are willing to adapt this change. CR20: Please include the information on willingness to change from traditional cultural norms by hunters and gathers if it was discussed during the stakeholder consultation. If not discussed, please present information on how the project plans to address this from a sustainability standpoint. 31 october 2025

Response: Pending

Secretariat: CAR8: Cleared as per revised document (annex on stakeholders' consultation). CR19: Cleared as per revised document PART II CR20: Cleared as per revised document PART II-H. 13 January 2026

Response: Pending

Secretariat: No comments 19 February 2026

Response: Pending

Secretariat: CR34(NEW): Please include a table to present the number of participants per consultation, with disaggregated data by gender. 5 May 2026

Response: Cleared

Secretariat: CR34(NEW): Cleared. As per Table 27. A table showing the number of participants per consultation, disaggregated by gender, has been included. 25 august 2026

Is the requested financing justified on the basis of full cost of adaptation reasoning?

Response: Pending

Secretariat: Yes. The proposal in PART II I, shows how each project/program activities are relevant in addressing its adaptation taken solely, without additional funding from other donors, they will help achieve these objectives. However, the explanation on component 4 linking investment in health systems to climate is weak. CR21: Kindly revise this section to better link the climate extremes described in the background to health. The explanation given on the health sector investment sounds like a “business-as-usual” in health care service development and should be justified in the context of achieving the adaptation goals of the project. The proposal further states that ‘have limited access to health service because of their livelihood style of moving from one place to another in search of water and food’. CR22: Kindly clarify, how does providing health insurance address this? Will the condition of insurance include that they abandon their indigenous way of life to access? 31 october 2025

Response: Pending

Secretariat: CR21: Cleared as per revised section PART II-I on climate-related health risks CR22: Not cleared. The CR22 requested the IE to justify how the proposed health insurance address the adaptation issues identified and protects the indigenous way of life. The proposed responses (not included in the main document) limits the response only to behavior change and not highlight how the insurance will address the adaptation reasoning. Kindly strengthen the document to address the adaptation issues targeted by this measure. 13 January 2026

Response: Pending

Secretariat: CR22: Cleared The explanation given on Page 69 of the Track change version of the revised document provides sufficient justification for the health insurance from the perspective of climate adaptation. 19 February 2026

Response: Pending

Secretariat: CAR3 NEW: At Part 2 A sub-section please elaborate on the activities as required and as per guidance of the instructions for preparing projects and programme “the activities will have to be detailed to a sufficient level and their appropriateness in responding to the threats posed by the likely climate scenarios should be outlined in detail in the background and context section and quantified in terms of magnitude and uncertainty”. For example: 1.1.1- 1.1.4; 1.2.1- 1.2.5; 1.3.1-1.3.5; 1.4.1-1.4.3;1.5.2; 2.1.2-2.1.2; 2.2.1-2.2.2; 2.3.1-; 3.1.1-3.1.4;4.1.1-4.1.2;4.2.1;4.3.1;4.4.1-4.4..2; 5.1.1-5.1.4; 5.2.1-5.2.2;5.3.1-5.3.3. 5 May 2026

Response: Cleared

Secretariat: CAR3 NEW: Cleared. As per revised Part II.A. The proposal has strengthened the description of all proposed project activities. 25 august 2026

Is the project / program aligned with AF's results framework?

Response: Pending

Secretariat: No. CAR9: The alignment table provided in part III.F must be revised in accordance with the guidance provided in Annex 5 of the OPG (refer to the example on p.16). More specifically: - Upper section of the table: i) enter the Project Objective in the "Project Objective(s)" column; ii) add the corresponding Project Objective Indicator(s) in the "Project Objective Indicator(s)" column; iii) for each Project Objective indicator, select only the most appropriate SRF Fund Outcome and enter it in the "Fund Outcome" column; iv) select only the most relevant SRF Fund Outcome Indicator for each Fund Outcome and enter it in the "Fund Outcome Indicator" column; and v) input the grant amount for each SRF Fund Outcome in the column “Grant Amount

(USD)", ensuring that the total equals the project activity cost, i.e. USD 2,118,234; - Lower section of the table: i) list the five project outcomes listed in the project results framework in the "Project Outcome(s)" column, along with their respective outcome-level indicators in the "Project Outcome Indicator(s)" column; ii) for each indicator, select only the most relevant corresponding SRF Fund Output and enter it in the "Fund Output" column; iii) choose only the most relevant SRF Fund Output Indicator for each Fund Output selected and enter it in the "Fund Output Indicator" column; and iv) input the grant amount for each SRF Fund Output selected in the "Grant Amount (USD)" column, again ensuring that the total equals the project activity cost of USD 2,118,234. Lastly, for consistency, please ensure that all the Fund Outcomes associated with the listed Fund outputs in the lower section of the table are reflected in the upper section of the table. CAR10: Kindly align table 12 with the correct outcomes and outcome indicators (each indicator should have a corresponding outcome), do not modify the table and kindly do not create your own AF indicators. Please ensure that the budget is identified by each associated AF output/indicator on its own. Ensure that budget totals of output indicators are not lumped together. Please see <https://www.adaptation-fund.org/wp-content/uploads/2019/10/Adaptation-Fund-Strategic-Results-Framework-Amended-in-March-2019-2.pdf> CR23: Please re-write the 'Project objective indicators(s)' to ensure that they are complete. 31 october 2025

Response: Pending

Secretariat: CAR9: Not Cleared. Please consult the updated template to complete this section accurately. <https://www.adaptation-fund.org/wp-content/uploads/2025/11/Alignment-with-Adaptation-Fund-Results-Framework-Template-and-guidance-Nov-2025.docx> CAR10: Not Cleared. Please consult the updated template to complete this section accurately. <https://www.adaptation-fund.org/wp-content/uploads/2025/11/Alignment-with-Adaptation-Fund-Results-Framework-Template-and-guidance-Nov-2025.docx> CR23: Cleared as per revised text under The Project Objective Indicators. 13 January 2026

Response: Pending

Secretariat: CAR9: Not Cleared Although Table 12 (pp 101 – 104) has been revised, there are still some areas which need to be adjusted. They are as follows: 1. The total in the upper and lower parts of the table must be aligned with the total activity cost in the detailed budget and the Project Components table (USD 2,118,645). 2. The Objective and Outcomes in the table must be aligned with the Outcomes in the Project Components Table. 3. The Fund Outputs in the upper part of the Alignment Table must align with the Outcomes in the upper part of the table. For Outcome 4, AF Fund Output 2.1 and Indicators 2.1.1. and 2.1.2 were used but there is no mention Fund Outcome 2 in the upper part of the table. Outcome 2 is also not mentioned in Part III F (d) which lists Fund Outcomes 6, 4, 5 and 3 as the relevant AF Fund Outcomes. Please revise the table in accordance with the guidance provided in the following link: <https://www.adaptation-fund.org/wp-content/uploads/2025/11/Alignment-with-Adaptation-Fund-Results-Framework-Template-and-guidance-Nov-2025.docx> CAR10: Not cleared (see comments above) 19 February 2026

Response: Pending

Secretariat: CAR9: Not Cleared. While the total in the upper and lower parts of the table has been amended, please revise the following: 1. The Amount Grant for each of the outcomes are consistent with Table 4. 2. The consistency between the AF outcomes and outputs related to each of the outcomes projects in the upper and bottom parts. See more information in this link. 3. Ensure the project's outcomes indicators are SMART. 4. The total \$2,118,234 on the upper part of the table is different from the component table -table 4 which is \$2,118,645. Additionally, the bottom of the table sums to 2,018,234. Please address. 5. In column 4 please separate out the grant amount per AF indicator. For example if 3.1 and 3.2 are both indicators selected please divide the resources per indicator in the grant amount column. CAR10: Not cleared (see comments above). 5 May 2026

Response: Not Cleared

Secretariat: CAR9: Not Cleared. 3. Please revise outcomes for Components 4 and 5, as they are currently formulated at the output level. For outcome 4.1, an alternative may be: "At least XX% of targeted individuals demonstrate improved knowledge and adoption of climate-health practices by 2029." and for outcome 5.1: "At least XX% of trained individuals apply climate adaptation measures in their livelihoods or community activities by 2029." CAR10: Cleared. As per revised Table 19. 25 august 2026

Has the sustainability of the project/programme outcomes been taken into account when designing the project?

Response: Pending

Secretariat: Unsure. However, more information is required. The proposal lists the bottom-up approach as justification of community ownership and therefore sustainability. Project implementation is to be done by local govern elaborate over ownership of the infrastructure and equipment purchased is unclear. CR24: Please clarify the following: 1. The proposal states that 'no beehives will be purchased for communities, rather experts and necessary workshop tools and equipment will be purchased and community members will be equipped with practical knowledge on modern beehives and honey processing techniques, including maintenance and operations'; However, Activity 1.1.2 states 'Provision of at least 1500 modern beehives and related equipment.' Who are the beehives to be allocated to if not the communities? 2. The proposal further states that the project is to be implemented by district institutions and village government structures kindly clarify the ownership of the boreholes to be drilled through the project. 3. Who will be responsible for the maintenance of the trees to be planted post-project? CR25: Kindly include the sustainability plan for the 600 persons who are to receive health insurance. CAR11: Kindly classify the narrative in PART II J into economic, social, environmental, institutional, and financial sustainability. 31 october 2025

Response: Pending

Secretariat: CR24: Not cleared 1. Cleared as per revised text for allocation of beehives under activity 1.1.2 2. Not cleared. While the IE confirmed that the ownership of the proposed boreholes, the sustainability approach is still unclear and subject to discussion. Please elaborate a clear sustainability plan and in particular an O&M with proposed tariff option (payers, management committee and decision making). 3. Cleared as per proposed maintenance plan in line with Village Natural Resource Committees (VNRCs) CR25: Not cleared. While the proposed subsidized premium is noted, it is not clear how the long-term sustainability will be ensured once the project implementation ends. Kindly clarify how the Health Fund (CHF/TIBA Kwa Kadi) will be managed and funded by households after the project. CAR11: Cleared as per revised document Part II.J. 13 January 2026

Response: Pending

Secretariat: CR24: Not cleared The financial aspects of the O&M have not been adequately explained. Please provide more details on the financial sustainability related to O & M of equipment and infrastructure. CAR25: Not cleared Long-term sustainability of how the Health Fund would be managed and funded after the project has not been explained in the project proposal. Please clarify. 19 February 2026

Response: Pending

Secretariat: CR24: Not cleared. 1. The financial aspects of the O&M have not been adequately explained. Please provide more details on the financial sustainability related to O&M of equipment and infrastructure. Now only includes a title named "O&M awareness & training" on page 21. CAR 4(NEW): 2. In Section J please address the

sustainability strategy for each of the project components. 3. Please specifically address the sustainability of the health insurance for 600 individuals. CAR25: Not cleared. Please clarify whether a Health Fund will be included in the proposal. In addition, please describe all long-term sustainability arrangements, particularly to explain the required actions applicable after the project ends. 5 May 2026

Response: Cleared

Secretariat: CR24: Cleared. As per revised Part II.J. The proposal states that O&M will be will be financed and managed by the WUAs. CAR 4(NEW): 2. Cleared. As per revised Part II.J. Sustainability is explained for each of the project components. 3. Cleared. As per revised Part II.J. Sustainability of the health insurance for 600 individuals is explained under Component 4. CAR25: Cleared. As per revised Part II.J. The proposal states that: "The Fund's initial cohort of 600 individuals is designed as a self-renewing base rather than a fixed pilot: coverage will be maintained year-on-year through automatic renewal facilitated by Village Executive Officers (VEOs) and community focal points, minimizing attrition among the initial enrollees. The District Council will establish a dedicated budget line to subsidize premiums for the poorest and most vulnerable among these 600 households, formalizing this support as a recurrent government commitment rather than a project-dependent one." 25 august 2026

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?

Response: Pending

Secretariat: Unsure. The project is identified as Category B and a summary table (6) has been included but modified from the template which makes it a bit harder to follow the logic of what the proposal is trying to convey. CAR12: Please use the table as issued in the template given for the proposal do not modify the table. Please see https://www.adaptation-fund.org/wp-content/uploads/2024/08/LLA-Single-Country-Funding-Application-Template_Fully-developed-1.docx CR26: In Table (6), on the of the environmental and social impacts and risks 1. Kindly leave a check mark in the second column 'No further assessment required for compliance' if no further assessment and leave blank if an assessment is to be conducted. 2. In the third column on 'Potential impacts and risks – further assessment and management required for compliance' For each risk categorized as low, medium, or high, please provide a brief justification (1-2 sentences) explaining the risk and its potential impacts, followed by a description of the proposed mitigation measures. CAR13: Please include a summary narrative of the environmental assessment in PART II K of that includes the category of the project, the gender-specific cultural and/or legal context in which the project/programme will operate. The ESI assessment report has very limited information on the potential risks posed by the project. Most of the narrative focuses on existing national and international standards, policies laws and framework. CR27: In the environmental and social impact assessment report please include 1. The estimated number of direct and indirect beneficiaries; 2. (i)All potential direct, indirect, transboundary, and cumulative impacts that could result from the proposed project/programme; (ii) identify possible measures to avoid, minimize, manage or mitigate environmental and social impacts of the proposed project/programme 3. Clarification how often the ESMP is to be conducted as in table 10 it is only budgeted for in the first quarter of the project alongside the baseline assessment; Please include it in the ESMP management plan, including (a) a timeline for the implementation of the ESMP activities and (b) which part of the implementation budget will be used for the identified activities, and (c) a monitoring and evaluation plan (d) if adaptive management has been taken into consideration. 4. Clear monitoring and evaluation arrangements for ESP compliance, that includes arrangements to monitor (during implementation) for unanticipated environmental and social risks. 5. A costed gender action plan in the gender assessment. CAR14: Please include a budget for the implementation of the ESMP. CAR15: The proposal suggests that multiple interventions are yet to be defined (location and size), in particular for borehole and beehives as well as other small-scale infrastructures

(rainwater harvesting reservoir). Kindly confirm if the project will be using USP approaches and provide further justification on the inability to identify the activities at this stage. Please address the USPs, either by providing the required justification and ESMP, or by fully identifying the activities. Please consult the USP guidelines Guidance Document for Project/Programme with Unidentified Sub-Projects 31 october 2025

Response: Pending

Secretariat: CAR12: Not Cleared The table 6 is still not using the standard format. Kindly check the standard table in the template downloadable here (section K) : <https://www.adaptation-fund.org/document/template-for-fully-developed-single-country-proposal/> CR26: Not cleared Kindly address CAR12 and use the correct template. CAR13: Not cleared Kindly address CAR12 and CR26 prior to addressing CAR13. CR27: Not cleared The section K is still not addressing the CR27 in consolidated manner. Kindly update this section and start an ESIA and not with ESMP directly. In addition, kindly use the standard AF format for screening 15 principles and identify potential risks. Please address all aspects of CR27 and indicate in the response sheet where exactly these have been addressed. CAR14: Not cleared The ESMP budget table 7 looks unrealistic; for example, a total of \$3,000 for gender actions plan implementation is rather unrealistic. Kindly clarify and correct. CAR15: Not cleared While the proposal confirms the use of USPs, the ESP annex does not specify the compliance with AF ESP and gender policy during implementation. Kindly clarify and address it. The proposed USP Screening Procedure is rather vague and does not specify the alignment with AF ESP and gender policies. For example, would the proposes USPs be assessed and screening by a technical committee? What would be the mitigation measures in case of category A USPs? Kindly include a comprehensive framework for assessing and screening USPs as per AF ESP and gender policies. CAR1 (NEW): The grievance mechanism presented in the proposal needs to be elaborated to indicate how the nationally established protocol will adequately be addressed within the project context. The section only mentions that the Coordinator will direct complainants to write a letter. Please clarify the mechanism to be put in place for individuals who may not be able to present a letter. What other approaches are available ? 13 January 2026

Response: Pending

Secretariat: CAR12: Cleared Table 6 (pp 57 – 59) in the revised track change proposal is presented in the standard format. However, the equivalent table in the Clean version is different. Please ensure the correct clean version of the proposal is used. CR26: Cleared CAR13: Not Cleared The correct template was used and information requested in CR26 included. A summary narrative of the environmental assessment , including the category of the project was provided in PART II K (pp 73 – 74). However, Table 4 in Annex 4 simply states the guidance notes for completion of the table. Please delete Table 4 in Annex 4. CR27: Not cleared Section K starts with the ESMP and not the ESIA as was recommended in CR27. 1. The estimated number of direct and indirect beneficiaries has been provided 2. Potential impacts, including indirect, transboundary and cumulative impacts which could result from the proposed project were identified (See pp 73 – 75 of the Revised Track Changes version of the proposal). 3. The timeline for implementation of the ESMP activities has been provided in the ESP Management Plan (pp 72 – 73) and the budget in Table 7. 4. Not clear 5. No costed Gender Action Plan has been provided in the gender assessment CAR14: Not cleared Notes on the gender action plan not provided to substantiate the size of the budget CAR15: Not cleared Requested information not provided in the revised project proposal CAR1 (NEW):Not cleared The grievance mechanism has not been further elaborated according to the points raised. Please address the issues related other approaches available for individuals who may not be able to present a letter and other approaches available 19 February 2026

Response: Pending

Secretariat: CAR13: Cleared. Table 4 in Annex 4 has been deleted to make a reference to Table 6 of the main document. CR27: Not cleared. Please ensure for Table on page 60: 1. The estimated number of direct and indirect beneficiaries has been provided 2. Potential impacts, including indirect, transboundary and cumulative

impacts are included. 3. Principles 1, 4 and 6 always apply, please uncheck from column to of the risk table. 4. Second column should not contain any word. Just an X or check mark in case the principle does not required compliance. Any other case should be leave it blank. 5. Each risk should include the “risk level” (low, moderate, high). 6. Each risk should include mitigation measures captured in column 3. Please address. 7. 5 and 6 should be included in detail in column 3. CAR14: Not cleared. The single line Gender Action Plan implementation under table 11 is insufficient.. It is noted that Annex 3 contains challenges and proposed mitigation strategies. These can be re-worked as activities and should be costed in a tabular format also including responsibility for each action in a Gender Action Plan as well and timeline for implementation. CAR15: Not cleared. While the proposal confirms the use of USPs, the ESP annex does not specify the compliance with AF ESP and gender policy during implementation. Kindly clarify and address it. The proposed USP Screening Procedure is rather vague and does not specify the alignment with AF ESP and gender policies. For example, would the proposes USPs be assessed and screening by a technical committee? What would be the mitigation measures in case of category A USPs? Kindly include a comprehensive framework for assessing and screening USPs as per AF ESP and gender policies. CAR1 (NEW): Not cleared While page 69 includes a section describing the grievance mechanism, it is not clear what this mechanism entails. Please provide a clear explanation of how it works and address whether there are alternative approaches available for individuals who may not be able to submit a written letter, as well as any other accessible grievance channels. 5 May 2026

Response: Cleared

Secretariat: CR27: Cleared. As per revised Table 13. Column two has been amended as well as the risk level, the risk descriptions, and the mitigation measures. CAR14: Cleared. AS per Table 25. Gender activities for each components are included in the table. CAR15: Cleared. As per revised Annex 5. CAR1 (NEW): Cleared. As per revised Part II.C (last paragraphs). The proposal states that alternatives to written submissions are available, indicating that the Grievance Redress Mechanism is multi-channel and culturally appropriate. 25 august 2026

Resource Availability

Is the requested project / programme funding within the cap of the country?

Response: Cleared

Secretariat: Yes 31 October 2025

Response: Cleared

Secretariat: No comments 13 January 2026

Response: Cleared

Secretariat: No comments 19 February 2026

Response: Cleared

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 august 2026

Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?

Response: Pending

Secretariat: Yes. CR28: Please ensure that all the amounts included in all the financial tables are correctly punctuated for correct values, kindly also ensure all the figures are rounded up to a whole number. 31 October 2025

Response: Pending

Secretariat: CR 28: Not Cleared. Please amend table to comply with cost categories as per <https://www.adaptation-fund.org/generic/costs-and-fees/>. 13 January 2026

Response: Pending

Secretariat: CR28: Cleared All amounts are correctly punctuated and rounded up to a whole number 19 February 2026

Response: Pending

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 August 2026

Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?

Response: Pending

Secretariat: Yes. However, amendments are required. CR29: Kindly Table 15: Executing fee Breakdown, almost all the totals do not add up to the figures indicated in the table. 31 October 2025

Response: Pending

Secretariat: CR29: Not cleared. Please amend table to comply with cost categories as per <https://www.adaptation-fund.org/generic/costs-and-fees/>. 13 January 2026

Response: Pending

Secretariat: CR29: Not cleared The totals in Table 15 add up to USD 200,070 which is not the figure in the Project Components Table.. Please amend the table to comply with cost categories and ensure that the totals add up. CAR5 NEW: The Total Programme/Project Cost in the Project Components and Financing section of the Track Change version of the FP (page 11) is incorrect. The Total Activity Cost is presented. Total Project/Programme Cost = Total Activity Cost + Project/Programme Execution Cost. 19 February 2026

Response: Pending

Secretariat: CR29: Not cleared. Please amend accordingly and ensure consistency between the cover page; the table on project financing and components; the disbursement table; the detailed budget table; and the table presenting the AF Results Framework, as well as across all tables and figures in the document. CAR5 NEW: 1. The Project total on the cover page is 2,600,000 whereas on the components financing table it still is 2,500,000. 2. Row 7 of the project component and financing at table 4, needs to be updated to reflect the actual total project programme costs which is Components costs + project execution costs which is \$2, 319,916 CAR5 NEW2: See CR29. Please use the AF Calculator for fees. 5 May 2026

Response: Not Cleared

Secretariat: CR29: Cleared. All tables and the cover page now present USD 2,500,000 as the total financing requested. Figures are consistent. CAR5 NEW: 1. Cleared. The Project total on the cover page has been amended to USD2,500,000. 2. Not cleared. Please follow the AF template for Full Proposals and amend Table 4 accordingly. In Table 4, the row for Project/Programme Execution Cost goes before of the Total Project/Programme Cost. The total project programme cost is Components costs + project execution costs which is \$2,319,916. Please do not change the titles and strictly follow the AF template. CAR5 NEW2: Cleared. See CR29. 25 august 2026

Eligibility of IE

Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?

Response: Pending

Secretariat: Accreditation Expiration Date: 13 October 2022. Accreditation status: In Re-accreditation Process. Please be advised that the findings of the AFB Secretariat's review of the funding proposal(s) do not reflect, indicate, or prejudice the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal. 31 October, 2025

Response: Pending

Secretariat: Accreditation Expiration Date: 13 October 2022. Accreditation status: In Re-accreditation Process. Please be advised that the findings of the AFB Secretariat's review of the funding proposal(s) do not reflect, indicate, or prejudice the outcome of the reaccreditation process currently underway. The Implementing Entity (IE) shall acknowledge that the funding proposal will not be approved by the Board if the IE's accreditation has expired, and reaccreditation has not been achieved at the time of the Board's decision. Notwithstanding this potential risk, the IE has elected to proceed with the development of the funding proposal. 13 January 2026

Response: Pending

Secretariat: No comments 19 February 2026

Response: Cleared

Secretariat: Yes. The National Environment Management Council (NEMC) is an accredited National Implementing Entity (NIE). Accreditation Expiration Date: 24 February 2031. 5 May 2026

Response: Cleared

Secretariat: No comments. 25 august 2026

Implementation Arrangements

Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?

Response: Pending

Secretariat: Yes. An organisational chart and a table of roles and responsibilities is included. The implementation is not inclusive of gender-responsive element. At figure 8 please include flow of funds as well as flow of information and add relational lines for AF as well as NEMA. CR30: Please clarify if the implementation arrangements include any gender expertise to ensure the gendered components of the projects are adequately met. 31 October 2025

Response: Pending

Secretariat: CR30: Not Cleared. Please also see CR27 sub-bullet 5. 13 January 2026

Response: Pending

Secretariat: CR30: Cleared Please refer to Figure 8 of the track change version of FP. The chart includes a Gender and Special Inclusion Specialist to ensure gendered components of the project are adequately met. 19 February 2026

Response: Pending

Secretariat: CAR6(NEW): 1. In part III Section A please refer to TAEPO, and CAN as executing entities and not coordinators to comply with AF terminology. Also re-phrase sentence which reads as follows 'TAEPO will lead community level implementation...'. For the AF NEMC is the implementing entity. TAEPO is an executing entity as named on the cover page. Therefore the narrative should be consistent throughout the proposal. 2. The section refers to Annex 3 as a summarized TOR of the Project coordinator. Annex 3 is currently a list of institutions and stakeholders consulted. Please include with the re-submission. There is also a second Annex 3 entitled Summary of gender analysis against project components. 3. Please rationalize the numbering of the annexes. 5 May 2026

Response: Cleared

Secretariat: CAR6(NEW): 1. Cleared. As per revised Part III.A. TAEPO and CAN are EE. 2. Cleared. The reference to Annex 3 as a summarized ToR for the Project Coordinator has been removed. In addition, there is no longer any duplication of Annex 3. 3. Cleared. The numbering of the annexes has been amended. 25 august 2026

Are there measures for financial and project/programme risk management?

Response: Pending

Secretariat: Yes. Table 8 includes the financial risks and areas of mitigation. 31 October 2025

Response: Pending

Secretariat: CAR4 (NEW): At table 8, please indicate responsibility for the mitigation measures outlined. 13 January 2026

Response: Pending

Secretariat: CAR4 (NEW): Not cleared Responsibility for mitigation measures are not indicated 19 February 2026

Response: Pending

Secretariat: CAR4 (NEW): Not Cleared. As per information in Table 11 (ESMP Management Plan) and Table 4 under the ESMP annex. Responsible institutions are provided. However, Please rationalize table 10, table 11 of Part II Section K into 1 costed ESMP table. At the moment the ESMP activities are different in both tables. This should also conform with Table 4 in Annex 4 for coherence throughout the proposal document. 5 May 2026

Response: Not Cleared

Secretariat: CAR4 (NEW): Not Cleared. Table 11 has been amended accordingly. However, given the repetition of items in the ESMP under each principle, the total budget does not amount to USD 277,000. Please remove the total line. 25 august 2026

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?

Response: Pending

Secretariat: Unsure. Responsibilities for the implementation of the ESMP is indicated in the report. However, the ESMP does not include a management plan, please see (CR27 and CAR 14). 31 October 2025

Response: Pending

Secretariat: CAR3 (NEW) : Please address the ESMP gaps as indicated in CR27 and CAR14 above as well as CAR1 (NEW). 13 January 2026

Response: Pending

Secretariat: CAR3 (NEW): Not Cleared ESMP gaps not addressed 19 February 2026

Response: Pending

Secretariat: CAR3 (NEW): Not Cleared. The proposal includes Table 4 under the ESMP annex to include how compliance will be achieved for each applicable AF principle. Please add a budget column to Tabel 4 in the ESMP to match the budget outlined in Table 11 on page 60 with the items in the EMSP mitigation measures table. 5 May 2026

Response: Cleared

Secretariat: CAR3 (NEW): Cleared. Table 30 now includes the ESMP related activities and their budget. 25 august 2026

Is a budget on the Implementing Entity Management Fee use included?

Response: Pending

Secretariat: Yes. However, amendments are required. Budget breakdown is included in table 16 and included allowance and M&E visits. However, please note amendments needed to IE fees included complete IE fees breakdown See CR28 above. 31 October 2025

Response: Pending

Secretariat: CAR2 (NEW): The detailed budget is presented in a disjointed manner on a per component basis with 1 table component. The notes to the budget do not form part of the detailed budget but are annexed to the main proposal document. Please present the detailed budget as one table with all the requisite parts, components, activities, and notes in the upper part. An excel template can be utilized and then copied and pasted in the main project document once completed. 13 January 2026

Response: Pending

Secretariat: CAR2: Cleared The detailed budget is presented in a single table with an added notes column. Please refer to Table 13 of the Track change version FP (pp 105 – 115) 19 February 2026

Response: Pending

Secretariat: CAR2(re-opened): 1. Please rationalize the budget notes in Annex 2 with the budget notes in the detailed budget. In some instances they seem not to match so they are additional notes. Please provide all the budget notes in the budget table, with information such as # of people targeted for the capacity building, and other units of measure for the various activities. 2. Please rationalize the budget of the M&E Plan \$71,000 vs the total M&E visits costs outlined under the IE fees of \$125,043- Table 20 vs and additional evaluation costs budgeted under the EC costs table 19. Please note that all M&E costs fall within the IE and EC costs and therefore should not exceed those total costs. Please consult AF website at 3. Please ensure that the sub output totals are accurate in the detailed budget. For example the total sub-total output 1.1 is \$130,720 not \$130, 720. 5 May 2026

Response: Not Cleared

Secretariat: CAR2(re-opened): 1. Cleared. As per revised Table 20. All budget notes have been amended. 2. Not cleared. The budgets for the IE and EE do not match across the tables. Please use the amounts presented in Table 4 consistently in all other tables, including Tables 17, 20, 21, and 22. The budget for M&E should also be consistent with these figures, as it is part of these fees. Please amend accordingly and ensure consistency in the figures and activities to be financed across all of these tables. 3. Cleared. As per revised Table 20. 25 August 2026

Is an explanation and a breakdown of the execution costs included?

Response: Pending

Secretariat: Yes. Budget breakdown is on table 15 but the totals do not add up, please see. CAR15: Final evaluation to be removed from EC costs. Also review as in the M&E Table 10,000 whereas presented 15,000. 31 October 2025

Response: Pending

Secretariat: CAR15: Not cleared. Final evaluation is still included in the EC costs. 13 January 2026

Response: Pending

Secretariat: CAR15: Not cleared Final Evaluation has not been removed from EC costs as suggested. Please see Table 15 of the Track changes version FP. Also the totals of the table are incorrect. Please revise and use the correct totals. 19 February 2026

Response: Pending

Secretariat: CAR15: Not cleared. 1. Final Project Evaluation has not been removed from EC costs as suggested. Also, please ensure the consistency of all figures throughout the document. Totals and budgets must be consistent. Baseline costs should also be removed from executing costs and placed under IE fees. 2. Please also address the other CRs and CARs related to the costs and fees across various sections of this review sheet. 5 May 2026

Response: Not Cleared

Secretariat: CAR15: Not cleared. Totals and budgets must be consistent. Baseline costs should also be removed from executing costs and placed under IE fees. As reference, see CAR2 and any other budget related CR and CAR. 25 august 2026

Is a detailed budget including budget notes included?

Response: Pending

Secretariat: Yes. A detailed budget is included however, on the budget notes is the numbering of the rows. CAR16: Kindly use the notes column of the budget to add budget notes where relevant and remove the budget notes from the Annex. 31 October 2025

Response: Pending

Secretariat: See CAR 2 (NEW) above. CAR16: Not cleared. 13 January 2026

Response: Pending

Secretariat: CAR16: Cleared The notes column has been added to the detailed budget table. Table 13 of the Track change version FP (pp 105 – 115). 19 February 2026

Response: Pending

Secretariat: No comments 5 May 2026

Response: Cleared

Secretariat: No comments 25 august 2026

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?

Response: Pending

Secretariat: Unsure. Table 10 has a 'Project monitoring and evaluation work plan and budget'. The 'baseline indicators' in table 11 does not have any gender disaggregated indicators, however, under 'means of verification' some gendered indicators are indicated, but the means of verification not included. The M&E Plan does not address management of the environmental and social risks identified. CR31: Please ensure that the M&E plan: 1. Is in compliance with the AF M&E guidelines and compliance with the Gender Policy see https://www.adaptation-fund.org/wp-content/uploads/2017/03/AF_GenderGuidanceDocument_Final_15Aug-2022_clean_16Aug-clean-1.pdf 2. Addresses management of the environmental and social risks identified. CAR17: The document doesn't include information on gender disaggregated data for M&E. Please include gender disaggregated data, targets and indicators in the proposal, in particular for activities under output 1 and 2 under component 1 which is vague currently. CAR18: Please kindly include in the M&E section references to the mandatory Project Completion Summary, Mid-Term Review, and final audited financial statements prepared by an independent auditor or evaluation body (see <https://www.adaptation-fund.org/projects-programmes/project-performance/>), ensuring that they are adequately budgeted in the proposal. CAR19: The proposed budget allocates a total of USD 25,000 for the Baseline data collection and Final Evaluation. This represents 1 % of the total project cost. Kindly revise these figures in all relevant sections of the proposal to ensure that evaluation costs (i.e., baseline data report, MTR and Final Evaluation) are between 2-5% of the total project cost, which is the recommended range for projects of this size (see table 3 in https://www.adaptation-fund.org/wp-content/uploads/2023/10/AFB.EFC_.32.7_Evaluation-Policy-Budget-Implication_clean.pdf). CAR20: Please ensure that, in compliance with Decision B.41/20, costs related to the baseline data report, MTR and the Final Evaluation are budgeted under the IE fee. CAR21: While the project includes an ESMP describing environmental and social risk management measures and a Grievance Mechanism, the M&E plan does not include any reference to ESMP and Grievance Mechanism monitoring during implementation. Please revise the M&E plan to ensure that it addresses management of the environmental and social risks identified, and ensure that dedicated budgetary provisions are made in the detailed budget for implementation of the ESMP and GRM. CR32: Please revise the Project Calendar Expected dates included in Part 1 of the proposal to reflect realistic dates. 31 October 2025

Response: Pending

Secretariat: CR31: Not cleared The review sheet does not address nor provide further reference in the main document CAR17: Not cleared The review sheet does not address nor provide further reference in the main document CAR18: Not cleared The review sheet does not address nor provide further reference in the main document CAR19: Not cleared The review sheet does not address nor provide further reference in the main document. CAR20: Not cleared The review sheet does not address nor provide further reference in the main document. CAR21: Not cleared The review sheet does not address nor provide further reference in the main document. CAR32: Not cleared The review sheet does not address nor provide further reference in the main document. 13 January 2026

Response: Pending

Secretariat: CR31: Not cleared The review sheet does not address nor provide further reference in the main document CAR17: Not cleared The review sheet does not address nor provide further reference in the main document CAR18: Not cleared The review sheet does not address nor provide further reference in the main document CAR19: Not cleared The review sheet does not address nor provide further reference in the main document. CAR20: Not cleared The review sheet does not address nor provide further reference in the main document. CAR21: Not cleared The review sheet does not address nor provide further reference in the main document. CAR32: Not cleared The review sheet does not address nor provide further reference in the main document. 19 February 2026

Response: Pending

Secretariat: CR31: Not cleared. Please address the M&E plan and address the following: (i) Ensure that the evaluation costs (currently \$25,000 for initial baseline studies and final evaluation) is between 2%- 5% of the total project costs. It is noted that the entire M&E budget currently falls less than 5% of the total project cost. (ii) Please rationalise costs between the ESMP budget and the M&E budget for example the ESMP states that monitoring costs will be \$24,000 whereas this is listed as \$18,000 in the M&E Plan; Please ensure that the gender monitoring cost are included in the M&E plan. CAR17: Not cleared. Please keep in mind that the M&E plan should follow the ESP and the Gender Policy of the AF. In this regard, kindly include gender disaggregated data, targets and indicators. CAR18: Not cleared. Please see CAR22. Ensure consistency with Table 15. CAR19: Not cleared. Please revise the budget for each activity under the M&E plan and amend it accordingly. Please keep in mind that all figures in the tables should be consistent. CAR20: Not cleared. Please clarify the budget for the IE fees and whether these include costs related to the baseline data report, the MTR, and the final evaluation. CAR21: Not cleared. While it is mentioned that the project will use an existing grievance mechanism, please clarify whether this mechanism will require a budget to include this project. CAR32: Not cleared. Please revise Table 5, Project Calendar, and amend accordingly to ensure realistic expected dates for the main milestones of the proposed project. 5 May 2026

Response: Not Cleared

Secretariat: CAR17: Not cleared. Please keep in mind that the M&E plan should follow the ESP and the Gender Policy of the AF. In this regard, kindly include gender disaggregated data, targets and indicators. CR31: (i) Cleared. (ii) Not cleared. Please add in table 17 explicit references to the implementation and monitoring of the project ESMP, GAP and GRM. Please also ensure that adequate budget provisions are allocated to these activities in Table 17 and that they are consistent with the allocations reflected in the detailed project budget. CAR18: Not cleared. Revise the list of M&E activities described in part III.D to ensure it is comprehensive and reflected in table 17, and that it uses Adaptation Fund terminology consistently, reflecting all mandatory reporting requirements (e.g. Baseline Data Report, Project Performance Reports (PPRs), Mid-Term Review (MTR), Project Completion Summary (PCS), Final Evaluation, and final Audited Financial Statements). CAR19: Cleared. CAR20: Not cleared. Contrary to what is stated, baseline-related costs continue to be charged to the Executing Entity, as evidenced in both the detailed budget and Table 21. CAR21: Not cleared. As requested under CR31, please revise Table 17 to include explicit activities related to the implementation and monitoring of the GRM, and ensure that a dedicated budget allocation is provided for this activity. CAR32: Cleared. CR32(NEW): Please include in Part III.D. a clear description of the respective roles and responsibilities of the Implementing Entity (IE) and Executing Entity (EE) for ensuring compliance with the Adaptation Fund Gender Policy (GP) and Environmental and Social Policy (ESP), including the monitoring and implementation of the ESMP, GAP, and GRM throughout the project lifecycle. 25 august 2026

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?

Response: Pending

Secretariat: No. A mid-term review is not included in the M&E framework; CAR22: Please include and budget for a mid-ten review in the M&E framework. Please also refer to CAR 18 and CAR 19 above. 31 October 2025

Response: Pending

Secretariat: CAR22: Not cleared The review sheet does not address nor provide further reference in the main document 13 January 2026

Response: Pending

Secretariat: CAR22: Not cleared The review sheet does not address nor provide further reference in the main document 19 February 2026

Response: Pending

Secretariat: CAR22: Not cleared. Table 20 should provide detailed information on what will be financed under Project Management. Will a mid-term review take place as part of the M&E framework? (it appears mentioned in Table 5 and planned for 2027). 5 May 2026

Response: Not Cleared

Secretariat: CAR22: Not cleared. A paragraph including information about a MTR during Year 2 has been included, however, this review is not show in Table 5. Please amend. 25 august 2026

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?

Response: Pending

Secretariat: No. CAR23: The project results framework should be revised as follows: i) Rename "Project Goal" to "Project Objective" to align with the terminology used by the Adaptation Fund, in line with the OECD definitions. The Project Objective describes the overall purpose of the project interventions, which includes the intended physical, financial, institutional, social, environmental, or other results that the project interventions are expected to achieve or to which it is expected to contribute. ii) Define associated Project Objective Indicator(s) which should capture the overall results that the project interventions are expected to achieve. AF core indicators may be considered to be used as objective indicators. iii) Given that the information currently included into both columns are indicators, the content of both columns "Baseline Indicators" and "Means of verification" should be merged into one single column that may be labeled "Indicators", while the "Means of verification" column should describe the means of verification for each indicator listed and the "Baseline indicators" one may be merged with the "Baseline levels" into a single "Baseline" column. iv) The "Project outcome indicator" column should be removed and its current content included in the "Indicators" column, at relevant level (i.e., outcome level). v) Once the above are done, please kindly ensure that all indicators listed are Specific, Measurable, Achievable, Relevant and Time-Bound. vi) Ensure that a realistic number of indicators are included in the framework, as too many indicators may result in resources-intensive monitoring efforts during implementation to ensure adequate measurement and tracking of progress against each target. vii) Ensure that targets and baseline values are provided for each indicator listed in the framework viii) As raised in the separate CAR on core indicators table, all relevant indicators should disaggregate the direct and indirect beneficiaries by gender and youth (age 15-24). ix) Ensure that the project results framework captures the indicators and associated targets included in the Gender Action Plan, once developed. CAR24: For each AF Core Indicators relevant to the project interventions (i.e., "Number of beneficiaries" and "Natural Assets Protected or Rehabilitated"), please add in Part III.E the corresponding Core Indicators table(s) available on pp.10-14 of the document "Methodologies for reporting Adaptation Fund core impact indicators". Kindly ensure that "Baseline" and "Target at project approval" columns are duly completed in each table, and ensure that the figures provided in the tables align with those included in the project results framework. While filling out the "Number of beneficiaries" core indicator table, efforts should be made to disaggregate the direct and indirect beneficiaries by gender and youth (age 15-24). 31 October 2025

Response: Pending

Secretariat: CAR23: Cleared as per revised document with information on Project Objective Indicators defined using AF core indicators and baseline indicators. CAR24: Not Cleared No core indicator tables have been presented in the proposal. Please include the core indicator tables as per the templates available at Methodologies for reporting Adaptation Fund core impact indicators (For fully-developed proposals) (78 kB, DOC) 13 January 2026

Response: Pending

Secretariat: CAR24: Not Cleared Although a core indicator table has been presented in the proposal (See page43 of the Track Changes version of the FP), it only provides information on beneficiaries, but no information is provided on Assets Produced, Developed, Improved or Strengthened. 19 February 2026

Response: Pending

Secretariat: CAR24: Not Cleared. Please refer to Assets Produced, Developed, Improved or Strengthened, alongside beneficiaries. 5 May 2026

Response: Cleared

Secretariat: CAR24: Cleared. 25 august 2026

Is a disbursement schedule with time-bound milestones included?

Response: Pending

Secretariat: Yes, but further clarification needed. CAR25: The project implementation milestones information is outdated. Please revise the Table under Part I as well as the disbursement schedule (Table 17). 31 October 2025

Response: Pending

Secretariat: CAR25: Not Cleared. Please ensure that Table 17 complies with Disbursement Schedule Template 13 January 2026

Response: Pending

Secretariat: CAR25: Not cleared. Although the referred table 17 (Now read as Table 13) has been revised accordingly as per template provided, the total disbursement does not coincide with the total budget of the project because of rounding. Please ensure that the totals are consistent throughout the proposal. 19 February 2026

Response: Pending

Secretariat: CAR25: Not cleared. Table 21 does not coincide with the total project budget (Table 4) or with the total funding presented on the cover page. Please review all figures, amend them accordingly, and ensure consistency. 5 May 2026

Response: Not Cleared

Secretariat: CAR25: Not cleared. The budgets for the IE and EE do not match across the tables. Please use the amounts presented in Table 4 consistently in all other tables, including Tables 17, 20, 21, and 22. The budget for

M&E should also be consistent with these figures, as it is part of these fees. Please amend accordingly and ensure consistency in the figures and activities to be financed across all of these tables. 25 august 2026



FULLY DEVELOPED PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Karatu Climate Resilience and Adaptation Project for Hadzabe and Datoga Communities – KARAHADA

Country: Tanzania (United Republic of)

Thematic Focal Area: Water Management, Agriculture, Ecosystem Restoration

Type of Implementing Entity: National Implementing Entity

Implementing Entity: National Environment Management Council (NEMC)

Executing Entities: Climate Action Network (CAN) Tanzania, Tanzania Environmental Protection Organisation (TAEPO), & Karatu District Council

Amount of Financing Requested: 2,500,000 (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: 3/12/2026

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



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3.5 PART III E: Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.	Error! Bookmark not defined.	
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1.0. Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic, social, development, and environmental context in which the project would operate.

1.1. Brief background on what the project aims to solve

The proposed project intends to address the climate change-induced impacts due to water scarcity and drought affecting the gatherers *and* hunters as vulnerable communities found along the salty Eyasi Lake catchment in the northern part of Tanzania. These vulnerable communities are already experiencing the impacts of climate change, including water scarcity, the primary driver of their vulnerability. The water scarcity causes drought, which severely affects the availability and sustainability of wild animals, plant roots, and wild fruits. The insufficient numbers of wild animals and fruits, which serve as staple food, result in famine for the hunters and gatherers. Some vulnerable communities have transformed and are now involved in crop production and livestock keeping. Most Hadzabe are hunter-gatherers who typically move in search of water and food. On the other hand, the Datoga, who are blacksmiths, do not farm or keep livestock, except for a few chickens kept by women. Therefore, the Hadzabe (hunters and gatherers) have limited livelihood options and limited capacity to adapt to climate change.

The gatherers and hunters depend on the Mang'ola River and shallow wells, some of which have salty waters, for their survival. Mang'ola Riverbanks have been encroached upon with the cultivation of major cash crops, namely onion and maize, which provide significant incomes for other communities. These crops rely heavily on pesticides, some of which pollute the Mang'ola River. Present and future climate-change impacts are projected to exacerbate multiple challenges across the district, affecting nearly all residents. These *impacts* are expected to include a profound decrease in water availability; thermal stress on humans, wildlife, livestock, and crops; changes in farming practices; changes in incomes and food security; ecological disruption; and human health impacts, such as the introduction of new disease vectors and changes in disease vectors.

1.2. Climate Change Context

Climate change is a challenge to economic growth and poverty eradication in most developing countries. It affects all countries worldwide, but the impacts are unevenly distributed across regions, generations, age groups, income groups, and occupations. The adverse impacts of climate change, such as droughts and floods, are already evident across nearly all sectors of the country's economy, resulting in high economic costs, loss of life, property damage, and other human capital lossesⁱ.

Climate change trends and future scenarios.

There is documented evidence that the climate is changing in Tanzania and worldwide. There is an increase in the frequency and intensity of extreme events, including heavy rainfall, strong winds, hail, and high temperatures. Between 1981 and 2020, severe flooding, drought, and record-breaking rainfall were observed in many parts of our country. According to IPCC reports, most of these extreme events have occurred in the last five years (2015, 2016, 2017, 2018, and 2019). This proposal will also examine rainfall and temperature projections and anomalies.

Rainfall projections and anomalies

Rainfall projections indicate that some parts of the country may experience a 28% increase in mean annual rainfall by 2100. Projections from Future Climate for Africa (2017) indicate that rainfall will decrease during the dry season and increase during the wet season, increasing drought and flood risk. The northwestern region around Lake Victoria is projected to observe a higher amount of rainfall by 2030. By 2090, these changes could increase by up to 10% relative to current annual rainfall averagesⁱⁱ. Rainfall distribution in Tanzania is characterised by bimodal patterns with peaks in October and December. These rains are called "Vuli", and the rains from March to May are called "Masika". Vuli and masika rains are more typical across the country from October to December, January to March, and April to June. TMA observations indicate that from 2016 to 2017, most regions of the country experienced low rainfall during the same months. Observations from TMA show that Karatu district annual rainfall has been increasing over time.

Recent climate analyses for Tanzania for the period **1991–2020** show a **statistically significant warming trend**, with mean annual temperatures increasing by around **0.5–1.0°C**, particularly in minimum temperatures. [PMC+1](#) National climate statements up to **2023** highlight that recent years have been among the warmest on record, with pronounced rainfall variability and alternating episodes of heavy rainfall and prolonged dry spells.

The Eyasi Basin and surrounding Hadzabe lands are characterised as semi-arid, with annual rainfall below 400 mm and mean temperatures around 30°C. Field studies indicate that many natural springs, small streams and waterholes have dried over recent decades due to declining and more erratic rainfall and recurrent droughts directly affecting Hadzabe access to water and wild foods. Regional climate projections using CMIP6 models indicate continued warming of 1.5–3°C by mid-century, with increased rainfall variability, more intense rainfall events, and potentially longer dry spells in semi-arid zones. [PMC+1](#) These trends justify urgent adaptation investments in water security, ecosystem resilience and diversified livelihoods for the target communities.

Table 1. Annual Rainfall (mm) by Stations, 2012 – 2018

Rainfall Regime	Station	2012	2013	2014	2015	2016	2017	2018	Mean
Bimodal Areas	Bukoba	2280.0	1863.3	2227.2	1755.1	1452.9	2676.2	1706.9	1994.5
	Mwanza	1307.5	1125.6	971.4	1530.7	1039.3	872.2	1153.0	1142.8
	Dar es Salaam	702.6	1004.4	1278.9	1038.9	782.9	1248.6	1208.4	1037.8
	Musoma	646.3	766.2	720.9	1038.0	627.2	622.5	1031.0	778.9
	Kilimanjaro	429.2	411.8	501.7	482.8	492.5	442.3	861.8	517.4
	Morogoro	646.7	551.8	993.8	587.6	587.6	762.2	1138.1	752.5
Unimodal Areas	Mtwara	646.3	1157.1	1023.9	1072.0	1332.9	1369.4	1180.7	1111.8
	Songea	896.0	1072.7	1010.8	852.3	846.7	1226.1	1039.0	991.9
	Tabora	810.8	939.8	826.5	957.4	911.6	885.3	1112.9	920.6
	Kigoma	735.3	999.9	832.7	951.6	913.5	869.2	985.1	898.2
	Mbeya	508.1	1028.3	1220.3	876.0	952.6	1043.6	1731.9	1051.5
	Iringa	545.3	859.1	885.5	555.4	757.6	622.1	509.3	676.3
	Dodoma	620.9	487.4	489.7	452.2	545.2	428.0	679.3	529.0
	Mean	828.8	872.7	968.8	934.6	864.8	1005.2	1102.9	939.7

Source: Tanzania Meteorological Authority (TMA)

In 2016-2018, the same months recorded relatively high rainfall. In 2019, rainfall varied across months, reflecting different trends and patterns. These changes in rainfall trends and patterns have significant impacts on the availability of food and water for vulnerable communities in Karatu District.

Temperature projections and anomalies.

Global climate models predict warming of 0.8 to 1.8 °C by 2040. More warming is projected over the western side of the country. A warming of less than 1.760 °C for 2050 and 3.280 °C for 2100 is projected over parts of the northern coastal regions and the northeast highlands. Studies have shown rising temperatures across the country. In 2019, the annual mean temperature was 23.80 °C, 0.90 °C above the long-term average (1981-2010). Temperatures in Tanzania are usually characterised by relatively fewer fluctuations throughout the year. Changes in temperature may affect humans, wildlife, and livestock. Communities that depend on these sectors may face adaptation risks that require measures to build resilience. Tables 2 and 3 show the monthly minimum and maximum temperatures from 2012 to 2018.

Table 2. Monthly Mean Minimum Temperature (°C), 2012-2018

Year	Jan	Feb	Mar	Apr	May	Jun	July	Au	Sep	Oct	Nov	Dec	Mean
------	-----	-----	-----	-----	-----	-----	------	----	-----	-----	-----	-----	------

2012	19.8	20.4	19.9	19.4	18.2	16.6	15.8	16.9	18.1	19.6	19.9	20.2	18.7
2013	20.3	20.1	20.5	19.7	18.2	15.9	15.6	16.7	18.1	19.5	20.5	20.1	18.8
2014	19.9	19.9	19.8	19.4	18.3	17.9	16.4	18.1	17.9	19.7	19.7	19.8	18.9
2015	19.9	20	19.6	18.6	18.6	16.9	16.4	16.9	18	20.1	20.2	20.1	18.8
2016	19.9	20.2	20.9	20	18.3	16.7	15.8	15.6	17.3	18.7	20	18.1	18.5
2017	19.7	19.7	19.2	18.9	17.9	16.5	15.5	16.8	16.9	18.7	19.0	19.8	18.2
2018	19.2	19.4	19.2	18.7	17.7	15.6	15.5	15.8	17.3	18.6	19.5	19.7	18.0
Mean (2012-2018)	19.8	20.0	19.9	19.2	18.2	16.6	15.9	16.7	17.6	19.3	19.8	19.7	18.6
LTM (1981-2010)	19.5	19.5	19.5	19.2	18.0	16.3	15.6	16.3	17.5	18.8	19.5	19.6	18.3

Source: Tanzania Meteorological Authority (TMA)

Table 3. Monthly Mean Maximum Temperature (°C), 2012-2018

Year	Jan	Feb	Mar	Apr	May	Jun	July	Au	Sep	Oct	Nov	Dec	Mean
2012	29.3	29.9	29.5	28.1	27.5	27.4	27.5	28.2	29.2	30.3	29.5	28.9	28.8
2013	29.3	29.9	29.3	28.2	27.7	27.3	27.5	27.9	29.3	30	30	28.8	28.8
2014	29	28.4	28.9	28.2	27.4	27.8	27.4	28.4	28.4	29.8	29.7	29	28.5
2015	28.6	30	29.8	28	27.8	27.7	27.9	28.6	29.6	29.9	29	28.7	28.8
2016	28.4	28.9	29.8	27.9	27.9	27.3	26.8	28.1	28.5	29.9	29.6	28.5	28.5
2017	27.8	27.2	26.7	26.1	27.4	27.4	27.1	27.1	29.2	30.3	29.3	30.0	28.0
2018	27.7	30.2	28.1	27.4	27.6	27.4	26.9	28.3	29.5	29.5	30.2	29.1	28.5
Mean (2012-2018)	28.6	29.2	28.9	27.7	27.6	27.5	27.3	28.1	29.1	29.9	29.6	29.0	28.5
LTM (1981-2010)	28.5	29.0	28.9	28.0	27.3	26.8	26.6	27.4	28.7	29.4	29.2	28.6	28.2

Source: Tanzania Meteorological Authority (TMA)

These monthly mean maximum and minimum temperatures show that communities can continue to undertake livelihood activities without much impact of temperature changes. Therefore, this project proposes to develop and implement concrete adaptation actions at the grassroots level to increase community resilience to climate change impacts, and it will align with the following sectors: water resources and supply, forestry and beekeeping, livestock production, tourism, and gender-related climate change. The project will apply transformative integrated environmental management, resilient rural water supply systems and climate-smart agriculture practices to reduce vulnerabilities. The project will be implemented in eight selected villages across the three wards: Baray, Endamaghan, and Mang'ola. This approach offers a practical and effective combination of Community-Based-Adaptation and Nature-Based-Adaptation techniques to support the transformation of the livelihood system, combat poverty, enhance the climate resilience of rural communities and gender equality, and reduce emissions through long-term carbon storage in landscapes. The resources sought from the Adaptation Fund (AF) will implement concrete and practical cost effective and multi-stakeholder's adaptation solution to improve livelihoods of the poor and vulnerable communities in the district through the following five outcomes:

- i. Increased food security, income and resilience to climate change impact through Climate Smart

- practices in selected villages in the three wards of Baray, Endamaghan and Mang'ola
- ii. Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gatherers and hunters) and Datoga (blacksmiths) in selected villages in the three wards of Baray, Endamaghan and Mang'ola
- iii. Improved forest services and functions to sustain climate change resilient livelihoods in selected villages in the three wards of Baray, Endamaghan and Mang'ola
- iv. Improved Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmiths) in selected villages of the three wards of Baray, Endamaghan and Mang'ola
- v. Improved capacity of Karatu District Council and Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities in planning, implementing and monitoring climate adaptation actions

1.3. Socio-economic development and environmental context

1.3.1. Location and Topography

Karatu district is located South of the Equator between Latitudes 3°10'4"00"S and Longitudes 34°47'E-35°56'E. The district is bordered by Mbulu District to the South, Iramba and Meatu Districts to the Northwest, Ngorongoro to the north, and Monduli and Babati Districts to the southeast. Karatu District is estimated to cover approximately 3,300 square kilometres, with Lake Eyasi occupying about 10.6 square kilometres. Administratively, the Karatu District is divided into four divisions: Mbulumbulu, Eyasi, Karatu, and Endabash. There are 14 wards and 49 registered villages.

The hunters and gatherers are mostly found in Baray, Endamaghan and Mang'ola wards. Karatu District has natural vegetation in the Rift Valley Highlands, characterised by bush and wooded grasslands. This enables the district to practice farming systems of Maize, Wheat, coffee, barley, legumes, dairy and traditional livestock. Figure 1 shows the map of Tanzania and the project sites.

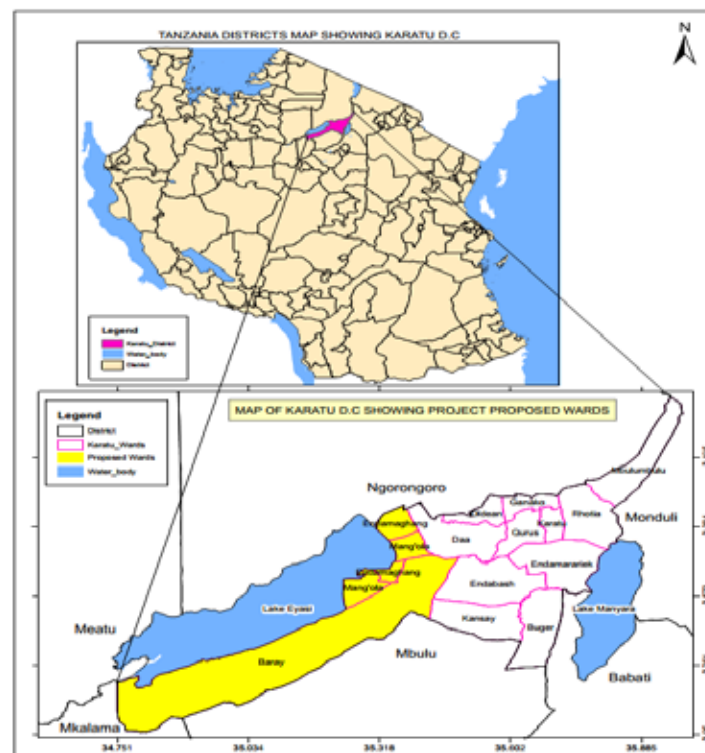


Figure 1. Map of Tanzania showing project location

1.3.2. Socio-economic and development context

Karatu District has a population of 233,691, of which 117,769 are males, 112,397 are females, and 48,345 households, according to the 2012 Census. The district's birth rate is 3.1%. The average population density is 73.4 persons/km², with low densities in the western zone along Lake Eyasi (7-10 persons/km²)

and higher densities (100 persons/km²) in Karatu and Mbulumbulu Division. The district is mostly populated by the “Iraqw tribe” being the dominant, the Barbaigs (Datoga) being the minor tribe who are pastoralists, and the Hadzabe who are hunters and gatherers. It is believed that, in the long run, Karatu Township will be the second-largest tourist town after Arusha City on the Northern Circuit. The district has three main ethnic groups, namely: “Iraqw, Hadzabe, Datonga and Barbaigs. The Iraqw are the largest community, estimated at 65 % of the population, and they occupy most of the highland areas. They practice mixed farming, which involves cultivation, herding cattle, and maintaining home gardens and trees. However, there are other ethnic groups found in the district. These are Maasai, Mangati, Chaga and Warangi.

Urban-Rural differentiations are manifested in Karatu District from 2002 to 2012. Urbanisation increased from 5.3% in 2002 to 6.4% in 2012. This change indicates a small movement of people, especially hunters and gatherers whose livelihoods depend heavily on natural bushes and forests in the Rift Valley near Lake Eyasi. The district's per capita income is estimated to be TSh. 800,000/= per annum³. Other important indicators of development are as follow; literacy rate is 64, population growth rate 3.1, dependency ratio 97, employment in agriculture 61%, livestock keeping 7.49%, office 3.14%, elementary occupation 21.33%, plant operations/assemble 0.37%, Business operation 5%, hand hoes as owned by most people is 79%, while sex ratio is 108, energy consumption (electricity) is 4% and firewood is 96%. The rural areas of Karatu District require water for human consumption, livestock, wildlife, and possibly irrigation. The majority of the rural population still relies on unprotected water sources, mainly earth dams, charcoal dams and water holes in swampy areas. In the execution of rural water schemes, the district strategy is to mobilise village communities to construct them. Thereafter, involve them in the management, maintenance, and operation of these schemes through their water user committees, with funds financed by user fees. The availability of infrastructure such as accommodation facilities, telecommunications services, roads, banks, and tour operators is an important factor in developing a competitive tourism industry. Accommodation facilities are important in attracting tourists. Therefore, information about hotels, campsites, and lodges is vital for tourists, as it helps them choose the type of accommodation they prefer and value for money. The Karatu District had at least 15 campsites by 2008. Some Hadzabe and Datoga communities are also involved in tourism.

The district is also promoting eco-tourism through campsites, particularly in areas inhabited by the Hadzabe hunters and gatherers and the Datoga (blacksmiths). Eco-tourism is therefore a good source of employment and income for the Karatu District. Another boost to the tourism sector is that the district lies in the main wildlife corridor between Ngorongoro and Marang Forest to Lake Manyara to the South (in the Mbulu District). Karatu town, located along the road to Ngorongoro Crater, hosts many tourist hotels and lodges. Likewise, there is heavy tourist traffic through the north-east, along the route to Manyara National Park, Ngorongoro Conservation Area, and Serengeti National Park. The district derives economic benefits from taxes and visitor sales revenue. Eco-tourism includes safaris, walking, wildlife watching, specialized bird-watching safaris, observing wildlife in its natural habitat, and meeting local people without interfering with their lifestyles. There are already eco-tours operated in the Hadzabe areas. Clients primarily go to the Mang'ola area for walking safaris. Tourists walk with the Hadzabe to learn about their traditions and to see wildlife. Other walking safaris come from the Ngorongoro Conservation Area to Mang'ola. Tour vehicles also come from Karatu to Mang'ola where particular villages offer camping sites for small fees. There is potential for birdwatching near the Lake Eyasi wetlands.

1.3.3. Environmental context

The proposed 35,399 ha intervention area in Karatu District consists entirely of legally designated Village Land under the Village Land Act (1999). Within this, the 600-ha referenced under Outcome 1 has been voluntarily allocated by Village Governments through Village Assembly resolutions for community-based restoration and natural resource management. No land acquisition, compulsory reclassification, or displacement is involved.

All activities will be implemented only when land tenure is clear and with full community participation. In areas inhabited by the Hadzabe, the project will apply Free, Prior and Informed Consent (FPIC) and ensure that customary land rights, cultural practices, and access to natural resources remain fully protected.

The project's design fully aligns with the Adaptation Fund Environmental and Social Policy (ESP), ensuring that interventions do not restrict access to land, alter existing rights, or adversely affect vulnerable groups or Indigenous Peoples.

On reforestation, efforts are being made by District institutions, such as individuals, the Council, CBOs, and NGOs, to address environmental degradation. There are six tree nurseries that support the

production and planting of seedlings for afforestation projects in eight wards: Baray, Ganako, Qurus and Kansay, Oldeani, and Rhotia. All non-protected forests are used for grazing. Particularly in the Western zone, many goats and sheep are reared by exploiting the salts in areas near Lake Eyas, resulting in heavy pressure on shrubs.

The forestry sector is important to residents of Karatu District primarily because it meets their domestic fuel needs. It is estimated that 95% of residents depend on fuel wood for their domestic energy needs. Charcoal is rarely used in rural areas; it is primarily produced for sale. Most Charcoal produced in the western zone is sold in the towns of Karatu, Oldeani, Mto wa Mbu, and the Ngorongoro Conservation Area. Tree species for charcoal include Acacia and Combretum species from natural woodlands and those planted in woodlots and on public lands (e.g., Acacia mearnsii, the wattle tree). Charcoal is not an efficient use of wood, as about 80% of its heat value is lost in its production.

The forest resources of the Western zone are unique for their diversity of plants and shrubs. These resources are used by Hadzabe for food. The baobab is the most important tree, providing staple foods. There are many natural fruiting shrubs. Among the important tuber crops are Vigna esculenta, Coccinea aurantica, and Ipomoea transvalensis. These tuber crops are crucial components for the survival of the Hadzabe. One hectare of Vigna Esculenta can support one family for about 148 days. Most shrubs and trees can provide useful medicine for both humans and livestock.

Beekeeping in Karatu District is primarily practised in traditional ways. Some tribesmen, such as the Tindiga and Hadzabe, live on honey, hunting, and tree roots. To them, honey is a staple food. Additionally, honey is used in the production of local brews, in the preparation of medicines, and is significant in traditional ceremonies and rituals, as well as in conflict resolution as a mediation symbol. There is significant potential to increase honey and beeswax production through both traditional and modern beekeeping techniques. Beekeeping is permitted upon request in the forest reserves. To date, honey production has been limited to local consumption, with potential to increase exports.

2.0. Project/Programme Objectives:

To enhance climate resilience and adaptive capacity of Hadzabe and Datoga communities in Karatu District through inclusive, ecosystem-based, and livelihood-centred adaptation interventions that reduce climate vulnerability, strengthen food and water security, and promote sustainable natural resource management. This project will specifically envisage achieving the following:

- i. To Enhance integrated climate change resilient livelihood diversification system in the selected sites in the three wards of Baray, Endamaghan, and Mang'ola in Karatu District
- ii. To enhance climate-resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities at Baray, Mang'ola, and Endamaghan Wards in Karatu District
- iii. To improve the climate change resilience of forests and non-timber products for selected villages of the three wards of Baray, Endamaghan, and Mang'ola in Karatu District
- iv. To promote climate change resilience of health systems at three wards of Baray, Endamaghan, and Mang'ola in Karatu District
- v. To Enhance capacity of the Karatu District Council and Communities in the three wards of Baray, Endamaghan, and Mang'ola to design and implement climate change adaptation interventions and improve the level of understanding of climate change-related issues

3.0. Project/Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term.

For the case of a programme, individual components are likely to refer to specific sub- sets of

stakeholders, regions and/or sectors that can be addressed through a set of well-defined interventions/projects.

Table 4: Project components and financing

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
1. Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District	1.1. Sustainable beekeeping initiative for food security and increased household income in the selected village of the three wards of Baray, Endamaghan and Mang'ola improved. 1.2. Use an alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three wards of Baray, Endamaghan and Mang'ola. 1.3. Use of local and improved breeds of rabbit and poultry for food security and income generation for the selected villages, three wards of Baray, Endamaghan and Mang'ola improved 1.4. Production of diversified cultural and nature-based tourism products for Hadazabe (hunters and gatherers) and Datoga (blacksmiths) women, men and youth improved. 1.5. Identification and production of suitable traditional and modern crops for enhanced food security and increased household income in selected villages of Baray, Endamaghan, and Mang'ola promote	1.1. Improved household income security and climate resilience among smallholder farmers, pastoralists, and agro-pastoral communities in Baray, Endamaghan, and Mang'ola wards through diversified, climate-smart livelihood options and strengthened adaptive capacities.	1.1: 130,720 1.2: 106,575 1.3: 135,310 1.4: 106,425 1.5: 55,433

2. Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District	2.1. At least 10 boreholes drilled in Hadzabe (gatherers and hunters) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District for improved water availability 2.2. Water supply systems constructed in Hadzabe (gatherers and hunters) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District for improved water quality 2.3. Hadzabe (hunters and gatherers) and Datoga (blacksmiths) were facilitated, trained and supported to operate and maintain the water infrastructure. 2.4. Climate resilient behavioral change and water governance for Hadzabe and Datoga communities in the three wards of Baray, Endmagahan and Mang'ola enhanced	1.2. Improved access to reliable, climate-resilient and safe water supply systems for Hadzabe and Datoga households in Baray, Mang'ola, and Endamaghang Wards, reducing vulnerability to droughts, seasonal water shortages, and climate-induced health risks. 1.3. Strengthened community and institutional capacity for sustainable water resource management and climate adaptation, including operation and maintenance of rural water infrastructure, inclusive governance structures, and integration of climate risk considerations into local water planning and service delivery	2.1: 173,225 2.2: 716,419 2.3: 36,249 2.4: 20,000
3. Improving climate change resilience of forests and non-timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District	3.1. Improve ecological and environmental services and functions in Baray, Endamaghan and Mang'ola wards 3.2. Integrate management of environmental and ecological systems aimed at sustaining climate-sensitive rural livelihoods.	3.1. Improved ecological and environmental services and function to sustain climate sensitive livelihood	3.1: 73,568 3.2: 55,001
4. Promoting climate change resilience of health systems at three wards of	4.1. A climate vulnerability assessment for a comprehensive action plan in the health sector at Karatu District Council was conducted.	Improved health and sanitation infrastructure and services for Hadzabe and Datoga (blacksmiths) in three wards of Baray, Endamaghan and	4.1: 17,409 4.2: 107,973 4.3: 14,916

Baray, Endamaghan and Mang'ola in Karatu District	4.2. Climate change issues are mainstreamed into health projects and programmes at Karatu District. 4.3. Community awareness on climate-related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District. 4.4. Climate-smart community health resource centres in selected villages of the three wards of Baray, Endamaghan and Maong'ola built, retooled and strengthened	Mang'ola in Karatu District	4.4: 25,022
5. Enhancing the capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve the level of understanding of climate change-related issues	5.1. The capacity of Karatu District Council in facilitating public awareness and understanding of climate change-related issues and the adoption of resilient climate livelihood practices has been strengthened. 5.2. Community institutions to assist in collecting climate-related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in the three wards of Baray, Endamaghan and Mang'ola established. 5.3. The capacity of the hunters, gatherers and blacksmith communities in planning and decision-making for undertaking climate-resilient livelihood practices is strengthened 5.4. Upgrade Karatu District meteorological services and its network and infrastructure for the provision of essential data for climate service and early warning	Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities in planning, implementing and monitoring climate adaptation actions	5.1: 70,327 5.2: 200,767 5.3: 30,000 5.4: 43,306

	systems to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola.		
Total Project/Programme component Cost			2,118,645
Project/Programme Execution cost			201,271
Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			180,084
Amount of Financing Requested			2,500,000

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Table 5: Project calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2027
Project/Programme Closing	December 2029
Terminal Evaluation	March 2030

PART II: PROJECT/PROGRAMME JUSTIFICATION

- A. Describe the project/programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.**

All five components and the indicative activities under this project focus on achieving concrete adaptation outcomes. All activities will be implemented on the ground in order to build resilience and improve the adaptive capacity of vulnerable Hadzabe (hunters and gatherers and Datoga (Blacksmith) communities. The proposed project will also promote gender-responsive climate action. The details of the five proposed project components are further described hereunder, and how these will contribute to the community's resilience

I. Theory of Change

The project's Theory of Change is based on the understanding that climate vulnerability in the target areas is driven by recurrent drought, unreliable access to water, degraded ecosystems, and dependence on climate-sensitive livelihoods. The project therefore focuses on four interconnected interventions: livelihood diversification, climate-resilient water systems, forest and ecosystem restoration, and climate-health risk

reduction. Through these interventions, the project will deliver immediate outputs, including improved access to water, adoption of alternative income-generating activities, restored ecosystems, and strengthened community health systems. These outputs are expected to lead to outcomes including increased income stability, enhanced water security, improved natural resource conditions, and reduced climate-related health risks.

The causal pathway follows an IF–THEN logic: **IF** communities gain climate-resilient livelihoods, reliable water supply, healthier ecosystems, and better climate-health preparedness, **THEN** they will have the capacity to withstand shocks and adapt to climate variability. **Ultimately**, this will result in improved community resilience, reduced vulnerability to drought, and enhanced well-being.

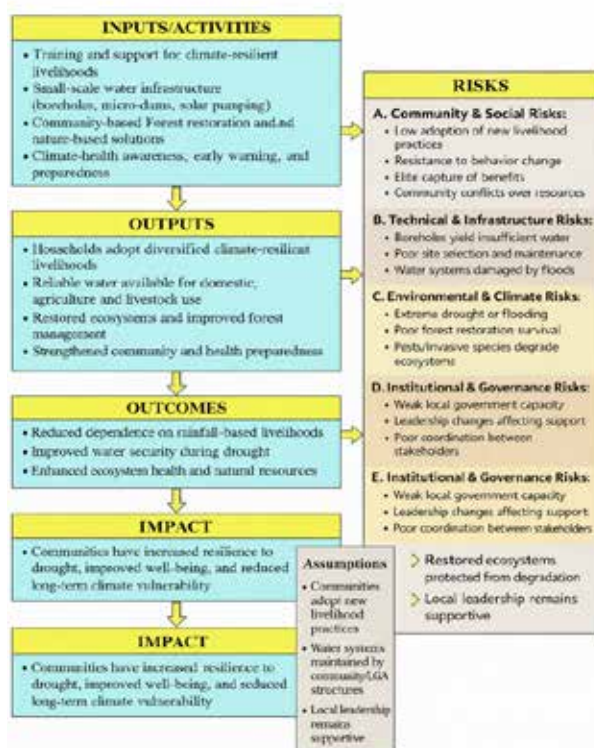


Figure 2. Theory of Change

II. Justification for Project Components

Component 1: Developing an integrated climate resilient livelihood diversification system in the selected sites in the three wards of Baray, Endamaghan and Mang'ola.

The Hadzabe and Datoga communities in Karatu have rich traditions in hunting, gathering, and blacksmithing that underpin their cultural identity, social cohesion, and dietary practices. As we look to introduce crop and livestock production, it's essential to take a culturally sensitive approach that honours existing knowledge, values, and preferences within these communities. To foster acceptance and minimise resistance, we will adopt a collaborative, community-driven strategy.

The first key component will be active community engagement and consultation. Before introducing any new foods or animal breeds, we will prioritise participatory engagement, including workshops, focus group discussions, and food-preference assessments with community members—elders, women, and youth. This process will help us better understand their dietary habits, taboos, and seasonal resource use. By incorporating indigenous knowledge and traditional food practices, we can ensure that any new crop and

livestock selections resonate with local tastes, culinary methods, and environmental conditions.

Next, a gradual and flexible approach to integrating new food systems will be implemented. Through demonstration plots, small-scale animal pilot programs, and co-managed kitchen gardens, households will have the opportunity to experiment without compromising their traditional practices. This phased strategy will help build trust within the community and highlight tangible benefits, such as increased food availability, enhanced nutritional diversity, and new income opportunities, enabling adaptations based on community feedback.

Additionally, we will focus on capacity building and knowledge exchange to complement the project's technical aspects. Training in climate-smart agriculture, animal husbandry, and post-harvest handling will be paired with documenting and sharing indigenous practices. This co-learning approach not only preserves cultural identity but also strengthens resilience.

Finally, we will implement continuous monitoring and feedback mechanisms, giving communities the platform to voice their concerns, suggest adjustments, and actively influence the evolution of new food systems. By combining collaborative planning, a gradual introduction of changes, culturally respectful selection, and a focus on shared learning, this project aims to enhance dietary diversity and resilience while upholding cultural values and food traditions.

Outcome 1.1

Improved household income security and climate resilience among smallholder farmers, pastoralists, and agro-pastoral communities in Baray, Endamaghan, and Mang'ola wards through diversified, climate-smart livelihood options and strengthened adaptive capacities.

Tanzania's economy and the livelihoods of its people are closely linked to climate-sensitive resources, underscoring the critical importance of promoting adaptive strategies to build climate-resilient livelihoods. Emphasising the integration and diversification of livelihoods presents a powerful opportunity to bolster resilience, as overreliance on a single income source can expose communities to greater risks in the face of climate-related challenges.

This multifaceted approach encourages the melding of various livelihood activities into a cohesive system, leading to increased cost-effectiveness and the generation of valuable co-benefits and synergies. For example, the harmonious combination of tree planting, poultry and rabbit husbandry, the cultivation of both traditional and modern crops, and beekeeping on the same farm creates a web of interdependencies that enhances overall productivity. The trees not only serve as guardians of the soil, preventing erosion and improving water infiltration, but also provide shade and habitat for beneficial organisms. Meanwhile, poultry and rabbits generate nutrient-rich manure that fosters healthy crop growth, and beekeeping plays a crucial role in pollinating plants, ensuring bountiful harvests and forest conservation, all while yielding sweet honey that contributes to household income.

This innovative integration has the potential to uplift approximately 300 camps and farmsteads in the vibrant wards of Baray, Endamaghan, and Mang'ola in Karatu District, offering both direct and indirect benefits to the community. The envisioned transition to an integrated climate-resilient livelihood diversification system is projected to increase household income by at least 30% by the conclusion of the project, fostering economic stability and prosperity. Additionally, the government's forward-thinking decision to allocate 600 hectares of forest land for conservation efforts not only safeguards vital ecosystems but also paves the way for sustainable income generation through beekeeping and carbon credit sales, setting a strong foundation for a more resilient future.

Output 1.1.1: Sustainable beekeeping initiative for food security and increased household income in the selected village of the three wards of Baray, Endamaghan and Mang'ola improved.

Beekeeping represents a promising nature-based livelihood activity that can significantly enhance resilience against the impacts of climate change. This initiative aligns with the national beekeeping policy, which emphasises the vital role of the beekeeping sub-sector in promoting Tanzania's sustainable development and conserving natural resources.

This viable enterprise delivers meaningful benefits to communities living in and around forests, particularly in the wards of Baray, Endamaghan, and Mang'ola. Importantly, beekeeping serves as an effective tool for raising community awareness regarding forest management and conservation.

Compared to cultivated crops, beekeeping is less susceptible to climate variability, often resulting in more stable income streams. The resilience of beekeeping is partly due to honeybees' ability to withstand higher temperatures to a certain degree. Additionally, integrating beekeeping into farming practices can enhance crop yields through improved pollination.

The project will directly benefit 10 beekeeping groups across the three wards, each with up to 20 members, including men, women, and youth. The initiative includes procuring 1,500 beehives, which will be designated as group-owned assets for the ten registered beekeeping groups. Ownership will be formalised through group constitutions and bylaws, which will outline regulations for maintenance, harvesting, processing, and revenue sharing. This collaborative approach strengthens community ties and fosters sustainable economic growth. The activities under this output includes the following;

1.1.1.1. Training on sustainable beekeeping

The project will provide comprehensive training on sustainable and climate-resilient beekeeping practices to approximately 200 beneficiaries organized into ten beekeeping groups across Baray, Endamaghan and Mang'ola wards. The training will cover modern hive management, colony establishment, apiary site selection, bee health management, climate-resilient beekeeping practices, harvesting techniques, post-harvest handling, quality assurance and environmental conservation. Particular attention will be given to integrating beekeeping with forest conservation and ecosystem restoration efforts. The activity addresses climate-induced livelihood vulnerabilities by promoting an income-generating enterprise that is less susceptible to drought and rainfall variability than conventional crop production. Improved technical capacity will increase honey production, strengthen household incomes and enhance adaptive capacity to climate-related shocks.

1.1.1.2. Provision of 1,500 beehives & equipment

The project will procure and distribute 1,500 modern beehives and associated beekeeping equipment, including protective gear, smokers, harvesting kits and honey storage containers, to ten registered beekeeping groups. The equipment will be provided as community-owned productive assets managed through group constitutions and operational bylaws. The intervention will directly support approximately 200 beneficiaries and indirectly benefit their households through increased income and food security. By diversifying livelihood options and reducing dependence on climate-sensitive agricultural production, the activity will strengthen resilience to recurrent droughts, rainfall variability and ecosystem degradation affecting the target communities.

1.1.1.3. Capacity building on honey marketing

The project will strengthen the business and marketing capacities of ten beekeeping groups through training on honey quality standards, packaging, branding, value addition, market analysis, business planning and market linkage development. Beneficiaries will be supported to identify local, district and regional market opportunities and comply with relevant quality requirements. The activity addresses market access barriers that often limit profitability of community enterprises. Improved marketing skills and stronger market linkages will increase incomes from honey and related bee products, thereby enhancing the economic resilience of vulnerable households to climate-related livelihood disruptions.

1.1.1.4. Training on forming honey cooperatives

The project will facilitate the establishment and strengthening of honey producer cooperatives to improve collective marketing, financial management, bargaining power and access to business services. Training will cover cooperative governance, leadership, record keeping, financial management, business development and legal registration requirements. The activity will strengthen institutional sustainability of beekeeping enterprises and create mechanisms for collective investment, market engagement and long-term asset management. Strong producer organizations will improve resilience by enabling beneficiaries to access larger markets, reduce transaction costs and sustain livelihood benefits beyond the project implementation period.

Output 1.1.2: *Use an alternative source of biomass energy promoted for Datoga (Blacksmiths)*

communities in the three wards of Baray, Endamaghan and Mang'ola.

For communities to be more adaptive to the impacts of climate change, they need to adopt resilient, less carbon-intensive and climate change smart infrastructures, tools and products. Datoga communities use charcoal as a source of fuel for forging metal tools and cooking. This project will introduce the use of alternative sources of energy and energy-saving stoves. This output aims at empowering 80 communities of Datoga (blacksmith) homesteads to be able to understand climate change – energy-related issues and to make briquettes and cooking stoves. This intervention aligns with the government's aim to increase the use of alternative energy to at least 50% of current levels. This initiative is in line with the Tanzania Sustainable Energy for All (SE4All) Action Agenda (2015).

Under Output 2, the project will promote alternative household energy solutions, including improved cookstoves and locally produced briquettes. Briquettes will be produced using agricultural residues and other biomass wastes (e.g. crop residues, sawdust, non-timber forest residues), identified through feasibility studies to ensure that feedstocks are sustainable, do not compete with food, fodder, or construction needs, and do not incentivise forest clearing.

The adaptation rationale for these interventions is threefold: (i) Reducing pressure on forests and woodlands helps maintain ecosystem services (shade, soil moisture, wild foods) critical for Hadzabe and neighbouring communities under a drying climate. (ii) Decreasing time and distance for fuel collection, particularly for women and girls, frees up time for education, caregiving, and climate-resilient livelihoods and reduces exposure to climate-related hazards (e.g. walking long distances during extreme heat). (iii) Lower indoor air pollution from improved stoves reduces respiratory and eye problems, contributing to stronger, healthier households that are more able to cope with climate shocks. The project will support co-design and testing of stove and briquette options with communities to ensure cultural acceptability and sustained uptake. The activities under the output includes;

1.1.2.1. Training on sustainable energy

XXThe project will provide training to approximately 80 Datoga blacksmith households and community members on sustainable energy technologies, climate change impacts, energy efficiency and environmental conservation. The training will focus on the relationship between unsustainable biomass use, forest degradation and climate vulnerability, while promoting alternative energy solutions suitable for local livelihoods and cultural practices. The activity responds to increasing pressure on natural forests caused by recurrent droughts and declining availability of fuelwood resources. Improved knowledge and awareness will strengthen community capacity to adopt climate-resilient energy practices and reduce dependence on unsustainable charcoal production.

1.1.2.2. Training on energy-saving stoves

CCThe project will train community members, artisans and selected local entrepreneurs in the design, construction, operation and maintenance of energy-saving cookstoves and improved blacksmithing stoves. Training will target at least 80 Datoga households and prioritize participation of women and youth. The improved stoves are expected to reduce biomass consumption, lower fuel costs and decrease indoor air pollution. By reducing demand for fuelwood and charcoal, the intervention will contribute to forest conservation and strengthen household resilience to increasing climate-induced resource scarcity.

1.1.2.3 Training on briquette production

The project will train beneficiaries on the production of environmentally sustainable briquettes using locally available agricultural residues, sawdust and other biomass waste materials. The training will cover feedstock selection, briquette production techniques, quality control, storage and marketing. Feasibility assessments will ensure that selected feedstocks do not compete with food production, livestock feed or other essential community uses. The activity will provide an alternative energy source while creating new livelihood opportunities and reducing pressure on forests and woodlands that provide critical ecosystem services under changing climatic conditions.

1.1.2.4 Support for stove & briquette enterprises

The project will support the establishment and strengthening of community-based enterprises involved in the production, distribution and marketing of energy-saving stoves and briquettes. Support will include business development training, entrepreneurship skills, equipment provision, market linkage facilitation and mentoring services. The intervention will create income-generating opportunities for local households while

increasing access to affordable alternative energy technologies. Diversified income sources and reduced expenditure on energy will enhance household adaptive capacity and resilience to climate-related economic shocks.

1.1.2.5 Establishment of energy-saver community groups

The project will facilitate the formation and strengthening of community energy groups responsible for promoting sustainable energy technologies, peer learning, awareness raising and collective enterprise development. The groups will serve as local platforms for knowledge sharing, innovation dissemination and monitoring adoption of improved energy practices. Community energy groups will also support long-term sustainability of project investments by coordinating maintenance, training and business development activities. The strengthened institutional capacity will contribute to sustained uptake of climate-resilient energy solutions beyond the project implementation period

Output 1.1.3. *Rabbit and Poultry farming established/ improved*

This intervention aims to facilitate communities in the three wards of Baray, Endamaghan, and Mang'ola in starting and improving local chicken and rabbit enterprises for food and income generation. This is a potential enterprise to generate income and build resilience for poor households and women's groups. According to the Tanzania Livestock Master Plan (2017), which sets out livestock sector investment interventions, including improved genetics, feed, and livestock health services. This is also well articulated in the Agriculture Sector Development Plan II 2015-2025, which is further translated into the Karatu Agriculture Development Plans (DADPs).

Therefore, this project will provide some technical assistance to interested communities on how to establish and run poultry and rabbit enterprises. The project will support small-scale commercial poultry and rabbit enterprises with a view to enabling farmers to produce meat and eggs in a very short time. This is intended to bolster the incomes of targeted communities, thereby enabling them to cope with climate-induced losses in hunting and gathering. The project will support 10 poultry groups and 10 rabbit groups in the specified wards, with each group having at least 25 members, comprising men, women, and youth.

Beneficiary selection for the 10 poultry and 10 rabbit groups (25 members each) will follow a transparent, community-led process that prioritizes women, youth, Indigenous Peoples, and persons with disabilities. All groups will have at least 50% women and 30% youth. FPIC will guide identification in Hadzabe areas. Selection will be based on vulnerability status, interest, and community validation to ensure equitable access and avoid any negative impacts or exclusion, in full compliance with the AF ESP and Gender Policy. Activities under output 1.3 includes;

1.1.3.1 Training on rabbit & poultry production

The project will provide technical training to 20 producer groups (10 poultry groups and 10 rabbit groups) comprising approximately 500 beneficiaries across Baray, Endamaghan and Mang'ola wards. The training will cover improved breeding practices, housing management, animal health, disease prevention, feeding, record keeping, climate-resilient livestock husbandry and business management. Particular emphasis will be placed on low-cost production systems suitable for vulnerable households, women, youth and Indigenous Peoples. The activity addresses climate-induced livelihood losses by promoting fast-growing and climate-resilient livestock enterprises that can generate income and improve household nutrition within a relatively short period.

1.1.3.2 Construction of houses

The project will support beneficiary groups to construct climate-resilient rabbit hutches and poultry houses using locally available materials and improved designs that enhance animal health, ventilation and protection from extreme weather conditions. The infrastructure will provide safe and productive environments for livestock production while minimizing disease risks and mortality. The activity will strengthen the productive capacity of beneficiary groups and improve resilience to climate variability, including rising temperatures and changing rainfall patterns that affect traditional livelihood systems.

1.1.3.3 Provision of breeding stock

The project will provide improved rabbit breeding stock and poultry breeds to the selected producer groups to establish and expand livestock enterprises. Beneficiaries will receive healthy and productive breeds

adapted to local conditions and capable of generating higher meat and egg production. This activity will support rapid enterprise establishment, increase household income opportunities and enhance food security for vulnerable communities experiencing reduced access to traditional hunting and gathering resources due to climate change impacts.

1.1.3.4 Provision of feed, drugs & equipment

The project will provide starter feed, veterinary drugs, vaccination support, feeding equipment, water containers and basic husbandry tools required for successful enterprise establishment. Technical support will also be provided to ensure appropriate animal health management and disease control. The activity will reduce barriers to entry for vulnerable households and improve survival and productivity rates of livestock enterprises. Enhanced livestock productivity will strengthen household adaptive capacity and reduce vulnerability to climate-related livelihood shocks.

1.1.3.5 Establishment of producers' groups

The project will facilitate the formation and strengthening of rabbit and poultry producer groups to improve collective production, access to extension services, input procurement, savings and credit opportunities, market access and knowledge sharing. Training will be provided on group governance, leadership, financial management, business planning and cooperative development. Strong producer organizations will enhance sustainability of project investments, improve bargaining power and create long-term livelihood opportunities that contribute to resilience building among Hadzabe and Datoga communities.

Output 1.1.4: *Women's jewellery and leather-making business improved*

Hunters, gatherers, and blacksmith communities are also involved in cultural tourism, sharing their cultural experiences with tourists and selling jewellery, metal tools and accessories, and leather clothing and ornaments. This project aims to support these communities in improving their products and in better making, packaging, and displaying them. This in turn will help them to have more income which can support them to buy food and other household needs, this intervention is in line with the national tourism policy (1996) which is currently under review to better address nature base tourism for the purpose of improving community livelihoods and development of quality tourism that is culturally and socially acceptable, ecologically friendly, environmentally sustainable and economically viable. In this project, 15 groups of jewellers, 15 groups of leather tanners, and 15 groups of blacksmith communities will be empowered to improve their enterprises to serve markets within the project sites and beyond. Income generated from jewellery selling supports livelihoods and ensured resilience to climate change-induced stress. Activities under output 1.4 includes;

1.1.4.1 Training on jewelry & leather

The project will provide technical and business skills training to approximately 45 producer groups (15 jewellery groups, 15 leather-processing groups and 15 blacksmith groups) operating in Baray, Endamaghan and Mang'ola wards. The training will focus on improved product design, quality enhancement, leather processing techniques, craftsmanship, value addition, finishing, packaging, branding and customer preferences. Beneficiaries will also receive training in sustainable raw-material sourcing and environmentally responsible production practices. The activity will strengthen the competitiveness of locally produced cultural products and increase income-generating opportunities for vulnerable households whose traditional livelihoods are increasingly affected by climate change. Enhanced skills and product quality will improve access to tourism and craft markets, thereby strengthening household resilience and adaptive capacity.

1.1.4.2 Promote jewelry/leather business

The project will support producer groups to improve product marketing, branding, packaging and market visibility through participation in local exhibitions, cultural tourism events, trade fairs and market linkage initiatives at least once in every project calendar year. Beneficiaries will receive business development support to identify new market opportunities and strengthen connections with tourism operators, traders and other buyers. The intervention will diversify and stabilize household income sources by increasing sales of jewelry, leather products, and traditional handicrafts. Improved market access will enhance the economic resilience of Hadzabe and Datoga households and reduce vulnerability to climate-related livelihood disruptions and declining natural resource availability.

1.1.4.3 Support forming maker groups

The project will facilitate the establishment and strengthening of producer groups and artisan associations to improve collective production, knowledge sharing, access to finance, marketing and enterprise development. Training will be provided on leadership, group governance, financial management, record keeping and business planning. The strengthened groups will serve as sustainable community institutions capable of supporting long-term enterprise growth and collective engagement with markets and service providers. Improved organizational capacity will enhance sustainability of project investments and strengthen community resilience through increased income diversification and social cohesion.

Output 1.1.5: *The production of traditional crops for home consumption has been introduced*

The Hadzabe and Datoga communities, known for hunting, gathering, and blacksmithing, are currently facing food and nutrition insecurity exacerbated by climate change. Additionally, they are experiencing significant water shortages due to increased activities from other community groups, such as farmers and pastoralists.

In response, this project is designed to engage the community and value their local knowledge and experiences. It aims to identify both traditional and modern crops the community considers suitable for improving food and water sufficiency. This initiative aligns with the Agriculture Sector Development Programme II (2015-2025), which focuses on transforming the agriculture sector and enhancing the livelihoods of smallholder farmers through income generation, ultimately improving food and nutrition security.

To support this goal, we will establish demonstration farms and kitchen gardens across three wards, creating spaces where the community can learn and share best practices. We plan to utilise a total of 10 hectares for community groups of 20 individuals each—women, men, and youth. These groups will receive training on good agronomic practices through farmers' field schools, Female Farmers' Field Schools, and demonstration plots.

By prioritising food security as a key element of climate change adaptation, this project aims not only to enhance nutrition security but also to build the adaptive capacity of the communities involved.

To support the successful adoption of market-oriented livelihoods such as rabbit keeping and jewellery making among the Hadzabe and Datoga communities, the project will incorporate measures to mitigate potential market-access risks, including demand uncertainty, transportation barriers, pricing challenges, and limited commercial experience.

The project will begin with **market assessments and demand studies** to identify viable buyers, evaluate pricing trends, and map local and regional market opportunities for both rabbit meat, honey, poultry and handmade jewellery. This information will inform production planning and ensure alignment with actual market demand. To strengthen the communities' market position, **producer groups and cooperatives** will be established to provide a platform for collective marketing, bulk production, and shared learning. These groups will be supported to negotiate **formal off-take agreements** with target partners, including local cooperatives, retailers, tourism operators, and regional market networks. The agreements will guarantee minimum purchase volumes and fair pricing, provide predictability and reduce financial risks for community producers.

Complementing these arrangements, the project will deliver basic **training in business management, marketing, and financial literacy**, equipping women, youth, and other community members with skills to manage production, set prices, maintain quality standards, and respond to customer preferences. To overcome logistical constraints, **pooled transportation systems and community storage hubs** will be established to ensure timely product delivery and reduce post-harvest losses. The introduction of **pilot production batches** will allow communities to test market response and refine production processes before full-scale implementation. Continuous monitoring and feedback mechanisms will further enable adaptive management of production, pricing, and marketing strategies.

Through this integrated approach combining market intelligence, producer organisation, capacity building, formal partnerships, and logistics support the project ensures that new livelihoods are **commercially viable, culturally acceptable, and sustainable**, while directly addressing the barriers identified in

previous assessments and review recommendations. These measures will enable a managed transition from purely subsistence practices to market-oriented livelihoods, while reducing exposure to price volatility and market failure. Activities under output 1.5 includes;

1.1.5.1 Training on crop production

The project will train approximately 200 beneficiaries (at least 50% women and 30% youth) organized into 10 community producer groups across eight villages in Baray, Endamaghan and Mang'ola wards. Training will be delivered through 10 Farmer Field Schools (FFS), 10 Female Farmer Field Schools (FFFS), and 10 demonstration plots over a period of three years. The curriculum will cover drought-tolerant crops, indigenous climate-resilient crops, soil fertility improvement, water harvesting, conservation agriculture, integrated pest management, post-harvest handling and climate information services. The intervention responds to increasing rainfall variability, prolonged droughts and declining availability of traditional food sources affecting Hadzabe and Datoga communities. Climate projections indicate increasing temperatures and more frequent dry spells in the Eyasi Basin, threatening food security and nutrition. The activity is expected to increase adoption of climate-smart agriculture practices among at least 80% of participating households, improve food availability and strengthen adaptive capacity of approximately 1,000 household members.

1.1.5.2 Establish 10-acre demo farms

The project will establish 10 hectares of demonstration farms and community kitchen gardens distributed across the three target wards. Approximately 10 producer groups, comprising 200 direct beneficiaries, will participate in establishing and managing the demonstration sites. The sites will showcase drought-tolerant traditional crops, improved crop varieties, water-efficient irrigation practices, mulching, composting, and other climate-smart agricultural technologies suitable for semi-arid conditions. Each demonstration site will function as a practical learning center for surrounding communities and is expected to reach more than 500 additional farmers through farmer-to-farmer learning and extension activities. The intervention will contribute to improved household food security, dietary diversity and nutrition while reducing vulnerability to climate-induced crop failures and food shortages. By increasing local production of climate-resilient crops and strengthening knowledge transfer, the activity will support long-term adaptation to projected increases in drought frequency and rainfall variability.

Component 2: Enhanced climate-resilient rural water supply system in vulnerable communities of Hadzabe (Gatherers and hunters) and Datoga (blacksmiths) at Baray and Endamaghan Wards.

Rural communities in Karatu District depend on climate-sensitive water resources and infrastructure for their water supply. It is evident that water services in the proposed project sites are facing water security risks in various aspects such as scarcity and quality, both of which affect health and other economic development systems. Existing water sources have proven unable to withstand the effects of climate change and rising water demand. Although quantification of water demand in these villages have yet to be well done by proper numerical models but based on villagers' views, field observation and visits paid to the community and issues raised in the planning workshops, it is clear that water shortage is a big problem especially to women and children and therefore a burden to people's life quality, health and livelihood. In the two wards, community members are forced to fetch supplementary water about 30 kilometres away from their homesteads. The impacts of climate change are evident, and this project will enhance resilience to them.

Outcome 2.1

Improved access to reliable, climate-resilient and safe water supply systems for Hadzabe and Datoga households in Baray, Mang'ola, and Endamaghang Wards, reducing vulnerability to droughts, seasonal water shortages, and climate-induced health risks.

The project aims to enhance access to reliable, climate-resilient, and safe water supply systems for households in the Hadzabe and Datoga communities in Baray, Mang'ola, and Endamaghang Wards. It addresses challenges from increasing drought frequency and seasonal water shortages by reducing reliance on shallow wells and unsafe water sources. To achieve this, the project will construct solar-powered boreholes, rainwater-harvesting systems, and protected springs, supported by hydrogeological assessments to ensure sustainable groundwater use. Groundwater, being less affected by rainfall

variability, offers a more reliable supply during dry periods. Additionally, watershed protection and ecosystem restoration will improve groundwater recharge and reduce contamination risks.

Community water user committees will be formed and trained to manage water operations equitably, with a focus on including women and vulnerable groups. Hygiene promotion and water quality monitoring will further improve health outcomes. Together, these efforts will reduce vulnerability to drought, enhance adaptive capacity, and ensure culturally appropriate, sustainable water access for the Hadzabe and Datoga communities.

Output 2.1.1: A least 10 boreholes drilled in Hadzabe (gatherers and hunters) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District for Improved water availability.

The initiative to drill at least 10 boreholes in the Hadzabe and Datoga communities of the Baray, Mang'ola, and Endamaghang wards is a proactive measure to address climate-induced water scarcity in the Karatu District. Community consultations and planning workshops have highlighted significant seasonal water shortages in traditional sources, often forcing women and children to travel long distances for unsafe water. This situation is worsened by climate variability, emphasising the need for more reliable water sources. Groundwater is identified as a resilient option, as boreholes access deeper water that is less affected by rainfall fluctuations. In Karatu, wider regional aquifers recharge more reliably than local sources, making them dependable during droughts. The project incorporates risk management and sustainability through several key measures:

- **Hydrogeological assessments:** Borehole sites will be selected based on hydrogeological data, ensuring sustainable yields and monitoring to prevent over-extraction.
- **Community governance:** Local water management committees will oversee water extraction, enforce equitable usage, and ensure availability.
- **Solar-powered pumping:** Renewable energy systems will reduce operational costs and stress on aquifers.
- **Conservation efforts:** Watershed protection initiatives will enhance groundwater recharge and align with Environmental and Social Policy safeguards.

Evidence indicates that improved water interventions in Karatu, such as World Vision's WASH projects, have reduced water-collection distances and improved access (<https://www.suaire.sua.ac.tz/handle/20.500.14820/3386>). Water quality studies in the Arusha Region show that borehole water typically meets national safety standards. The proposed project's approach to drilling boreholes is designed to increase water availability and reliability amid climate challenges while embedding risk mitigation and governance measures to ensure a sustainable future for these communities.

2.1.1.1 Hydro-geological survey

The project will undertake detailed hydrogeological investigations in the target villages across Baray, Mang'ola, and Endamaghang wards to identify suitable borehole locations and assess groundwater availability, recharge potential, water quality, and long-term sustainability. At least 15 potential sites will be assessed to identify the most viable locations for constructing 10 climate-resilient boreholes. The assessments will include groundwater mapping, yield testing, water quality analysis, environmental screening and climate risk assessments to ensure that selected sites remain viable under projected climate scenarios characterized by increasing drought frequency and rainfall variability. The activity will directly benefit approximately 5,000 community members, including Hadzabe and Datoga households, by ensuring that water infrastructure investments are technically sound, environmentally sustainable, and climate-resilient.

2.1.1.2 Drill boreholes and solar systems

The project will drill, construct, and operationalize 10 climate-resilient boreholes equipped with solar-powered pumping systems in selected villages across the three target wards. Each borehole will be designed based on hydrogeological survey findings and fitted with solar-powered pumps, storage facilities, and water distribution points to ensure reliable year-round access to safe water. The intervention is expected to directly benefit approximately 5,000 people, including women, children, Hadzabe, and Datoga households who currently experience seasonal water shortages and travel long distances to collect water.

Output 2.1.2: *Community Water Users Association (WUAs) established, facilitated and committee members trained in the operational and maintenance of the water supply systems*

Establishing WUAs and equipping them with the necessary tools and expertise will empower vulnerable communities in the two wards to leverage their own knowledge and decision-making processes to take action and play an active role in delivering the expected outputs of Component 2 over the long term, beyond the project lifetime. The indicative activities to be implemented under this output are: Formulate water governance structures (WUAs) and promote equitable water allocation for all uses and revenue collection. Promote the development of water governance bylaws to ensure effective water use and protect water sources. Conduct Technical Trainings of Trainers on maintenance and operations; management of finance, accounting and group dynamics issues to selected community members of WUAs for the three selected wards.

This output proposes establishing a robust, sustainable institutional structure to manage the community- and village-level climate-resilient water supply systems at the project sites. The output suggests establishing WUAs to be trained in group management and dynamics, as well as in the maintenance and operation of rural water systems. The activities under this output includes;

2.1.2.1 Installation of Water storage tank, pumps, and distribution networks

The project will install water storage tanks, solar-powered pumping systems and water distribution infrastructure associated with the 10 climate-resilient boreholes established under Output 2.1.1. The infrastructure will include elevated storage tanks, transmission pipelines, and distribution systems designed to provide reliable and equitable access to safe water for communities in Baray, Enda Maghan, and Mang'ola wards. The systems will be designed based on projected water demand, population growth and anticipated climate-related water stress. Approximately 5,000 direct beneficiaries will gain improved access to reliable water supplies throughout the year. The intervention directly addresses increasing water scarcity, prolonged droughts and declining reliability of traditional water sources caused by climate variability and climate change. Improved water storage and distribution capacity will reduce water losses, improve system efficiency and strengthen community resilience to future climate shocks. —

2.1.2.2 Construct community water points

The project will construct and equip approximately 20 community water points in target villages to improve access to safe, affordable water for Hadzabe and Datoga households. The water points will be designed to reduce walking distances, minimize congestion, and ensure equitable access for women, children, elderly persons, and vulnerable groups. Community consultations and participatory planning processes will guide site selection to ensure accessibility and social acceptability. The intervention is expected to reduce the average time spent collecting water, improve household water security, and enhance public health outcomes. By increasing access to climate-resilient water infrastructure, the activity will strengthen the adaptive capacity of vulnerable communities facing increasing drought frequency and seasonal water shortages.

Output 2.1.3: *Climate resilient behavioural change and governance at community level enhanced*

In this component, community members will be trained and given the opportunity to share their local knowledge and experience on how to change behaviour related to water governance at the community level. This project will support communities in forming representatives from traditional leaders' women, men, and youth. The CBWSOs are being recognised by the new Water and Sanitation Act No.5 of 2019, which established "Rural Water Supply and Sanitation Agency–RUWASA" with responsibility to manage rural water supply. Under the new Water and Sanitation Act, 2019, village water schemes are classified as CBWSOs. These are required to operate rural water supply in communities professionally, with technical managers and accountants employed and paid by the Government, who will work with community representatives (Village Water Boards) to sustain water services. These CBWSOs will be backstopped by the RUWASA District Managers' Office in Karatu District for technical and management issues. All CBWSOs to be formed will be responsible for setting water tariffs and collecting water revenues. Approximately 8 CBWSOs will be formed, one in each selected village. The key activity under this output include;

2.1.3.1. O&M awareness & training

The project will establish approximately eight CBWSOs (one per selected village) and deliver a structured training program to ensure each can operate and maintain its water scheme sustainably. The project will conduct at least one training session per CBWSO, reaching at least 30 participants drawn from CBWSO management, Village Water Boards, and community representatives, with at least 40% women and youth. Training will cover water governance and responsibilities under the Water and Sanitation Act No. 5 of 2019; tariff setting, revenue collection, and transparent financial management; and preventive maintenance, minor repairs, and spare-parts management. By building these technical, financial, and governance skills across all eight CBWSOs, the training ensures effective O&M, sustained cost recovery, and continued water service delivery well beyond the project's lifetime.

Component 3: Improving climate change resilience of forests and non-timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

The proposed restoration approaches, including assisted natural regeneration, enrichment planting of 30,000–40,000 indigenous trees, soil and water conservation structures, riverine rehabilitation, and community woodlots, are designed to enable long-term ecological recovery across hillsides, woodlands, bare lands, and riparian zones. These interventions will restore 600 ha of community-designated land, reduce erosion by 30–50%, improve vegetation cover by over 40%, enhance groundwater recharge, and stabilise degraded slopes. Together, these actions will deliver sustained environmental benefits and strengthen the climate resilience of vulnerable communities, including the Hadzabe, by improving ecosystem services such as water, soil fertility, wild foods, and biodiversity.

The project addresses past and ongoing negative practices by providing climate-resilient alternative livelihoods, strengthening community natural resource governance, promoting behaviour change, and protecting restored areas. By creating economic incentives to stop harmful practices, introducing sustainable energy and water solutions, and empowering women, youth, and Indigenous groups in decision-making, the project will generate long-term changes in how land, forests, and water resources are used and stewarded. These approaches ensure that restored ecosystems are maintained and that vulnerable communities benefit from healthier, more resilient landscapes.

Outcome 3.1: Improved ecological and environmental services and function to sustain climate-sensitive livelihoods.

For many years, ecological systems in Karatu have been challenged by both human activities and climate change. The transition from natural savannah ecosystems to agricultural schemes initiated by colonial governance led to significant degradation. Since then, various human-induced factors, including unsustainable farming practices, deforestation, charcoal production, and overgrazing, have further affected the area. To address these issues effectively, it is crucial to implement innovative approaches that integrate community engagement and ecosystem-based solutions for climate change.

This initiative, particularly under component 3, aims to strengthen ecosystem services and environmental functions critical to climate-sensitive livelihoods, particularly in agriculture, livestock, forestry, fisheries, and nature-based enterprises. Climate change has notably exacerbated issues such as land degradation, water scarcity, biodiversity loss, and ecosystem fragmentation. These challenges undermine natural systems' ability to support food production, income generation, and community well-being. However, by focusing on restoring and sustainably managing ecosystems, we can significantly enhance the resilience of landscapes and livelihoods, ensuring communities continue to benefit from essential ecological services as climate conditions evolve.

Key strategies will include restoring degraded forests, rangelands, wetlands, and watersheds through initiatives such as assisted natural regeneration, tree planting, and soil and water conservation measures. Protecting critical habitats will also be a priority. These efforts will enhance soil fertility, regulate water flow, mitigate erosion and flooding, boost groundwater recharge, and stabilise microclimates, all of which are essential for fostering climate-resilient agricultural and pastoral systems. A strengthened focus on biodiversity conservation will further bolster pollination services, pest control, and genetic diversity,

essential components for sustainable food systems and overall ecosystem health.

The project will also work to empower community-based natural resource management structures to promote sustainable land-use practices, enforce regulations, and incorporate climate risk considerations into local development planning. By improving access to ecosystem-based adaptation approaches such as agroforestry, sustainable forest management, and nature-based solutions we can enhance the adaptive capacity of households and institutions. Special attention will be given to supporting women, youth, and marginalised groups in environmentally sustainable livelihood activities, including non-timber forest products, beekeeping, eco-tourism, and value-added natural resource enterprises.

By improving ecological and environmental services, we can effectively reduce vulnerability to climate shocks, boost productivity in climate-sensitive livelihoods, and safeguard natural capital for both present and future generations. This approach contributes to a more inclusive, sustainable, and climate-resilient development.

Output 3.1.1: *Improve ecological and environmental services and functions in Baray, Endamaghan and Mang'ola wards*

The ongoing degradation of environmental and ecological systems, coupled with climate change, has reduced forest and woodland cover and the availability of associated goods, accelerating land degradation and water catchment degradation in Karatu District. Across the district, wetlands have been severely degraded as a result of inter alia:

- a) Use of forestry as a source of energy
- b) Intensive cultivation of crops such as maize and horticultural crops;
- c) Excavation of sand and clay for brick works; and
- d) Grazing activities.

These activities directly align with the National Environmental Action Plan (NEAP) 2020, which identifies land degradation, deforestation, unsustainable fuelwood use, and ecosystem depletion as critical environmental challenges and calls for community-based restoration and sustainable natural resource management in vulnerable landscapes.

Therefore, this component and the proposed output activities aim to establish and implement ecological restoration and rehabilitation plans for hills, observed bare land, mountainous, and woodland systems. All eight villages will be engaged in restoration and rehabilitation activities, including tree-planting campaigns that engage communities to plant trees on surrounding homesteads and camps, as well as in other degraded landscapes at schools and other public institutions. The key activities are;

3.1.1.1 Training on integrated forest management

Activity 3.1.1.1: Training on Integrated Forest and Ecosystem Management

The project will train approximately **400 community members (at least 50% women and 30% youth)** drawn from **eight villages in Baray, Endamaghan and Mang'ola wards** on integrated forest management, ecosystem restoration, climate change adaptation and sustainable natural resource management. Training will cover forest governance, community-based forest management, assisted natural regeneration, sustainable harvesting practices, watershed protection, biodiversity conservation and climate-resilient land management. The activity responds to increasing forest degradation, declining ecosystem services, reduced groundwater recharge and loss of biodiversity caused by unsustainable land use practices and climate change. Improved community knowledge and management capacity will strengthen stewardship of forest resources and enhance ecosystem resilience to future climate stresses.

3.1.1.2 Establishment of tree nurseries

The project will establish at least two community tree nurseries with a combined annual production capacity of approximately 40,000 indigenous and climate-resilient tree seedlings. Community members will receive training on nursery establishment, seed collection, seedling propagation, nursery management, and seedling distribution. The nurseries will produce indigenous tree species suitable for ecological restoration, watershed protection, biodiversity conservation, and livelihood improvement. The intervention will ensure sustainable availability of planting materials required for restoration activities while creating local employment opportunities and strengthening community participation in ecosystem rehabilitation efforts.

3.1.1.3 Tree planting & maintenance

The project will support the planting and maintenance of approximately 40,000 indigenous and climate-

resilient tree seedlings across degraded woodlands, hillsides, water catchments, public institutions, and community lands within the eight target villages. Restoration activities will cover approximately 600 hectares of degraded landscapes, including critical water catchments and ecologically sensitive areas. Community members, schools, village environmental committees, and restoration groups will participate in annual tree planting campaigns and maintenance activities. The intervention will improve vegetation cover, reduce soil erosion, enhance groundwater recharge, strengthen biodiversity conservation, and improve ecosystem services that support climate-resilient livelihoods. The activity directly addresses increasing land degradation, declining forest cover, and climate-induced ecosystem stress affecting the target communities.

3.1.1.4 Establish tree-planting groups

The project will facilitate the formation and strengthening of eight community restoration groups, one in each target village, to coordinate tree planting, ecosystem restoration, and environmental conservation activities. The groups will receive training on leadership, group governance, environmental monitoring, restoration planning, and sustainable management of restored areas. The groups will serve as local institutions responsible for supporting long-term maintenance and protection of restored ecosystems beyond the project period. Strengthened community institutions will enhance ownership, sustainability and resilience of ecosystem restoration investments while contributing to improved climate adaptation outcomes across the project area.

Output 3.1.2: Integrate management of environmental and ecological systems aimed at sustaining climate-sensitive rural livelihoods.

The output will implement Ecosystem-based Adaptation (EbA) activities, such as promoting beekeeping in woodland and mountainous systems and establishing fruit trees as income-generating activities.

The indicative activities to be implemented under Output 3.2 are:

3.1.2.1. Establish and implement ecological and forest restoration and rehabilitation plans (hills, mountainous and woodland restored and conserved) in selected villages of Baray, Endamaghan and Mang'ola wards. The project will develop and implement ecological restoration and rehabilitation plans covering at least 50 hectares of degraded hillsides, woodlands, mountainous landscapes, and critical water catchment areas across the eight target villages in Baray, Endamaghan, and Mang'ola wards. The restoration plans will be prepared through participatory processes involving village governments, environmental committees, Hadzabe and Datoga communities, women, and youth groups. Restoration interventions will include assisted natural regeneration, enrichment planting, protection of sensitive ecosystems, soil and water conservation measures, erosion control, and sustainable land management practices. The activity directly addresses climate-induced ecosystem degradation, declining vegetation cover, reduced groundwater recharge, and biodiversity loss caused by prolonged droughts, unsustainable resource use, and increasing climate variability. Restored ecosystems will improve water retention, enhance soil fertility, increase carbon sequestration, and strengthen ecosystem services that support climate-resilient livelihoods. Approximately 5,000 community members are expected to benefit directly and indirectly from improved ecosystem functions and environmental services.

3.1.2.2. Promote improved ecosystem-based income-generating activities such as improved beekeeping activities in woodland, hills and mountainous systems and fruit plants planting in selected villages of Baray, Endamaghan and Mang'ola wards. The intervention will support approximately 400 beneficiaries organized into community groups to establish and expand environmentally sustainable enterprises, including climate-resilient beekeeping, fruit tree cultivation, and other nature-based livelihood activities. Approximately 10 beekeeping groups and community-based fruit tree initiatives will be linked to restoration sites to enhance both ecosystem recovery and livelihood benefits. The project will support the planting of approximately 10,000 fruit trees in suitable locations across the target villages to improve household nutrition, diversify incomes and increase vegetation cover. Beneficiaries will receive technical training on orchard establishment, fruit tree management, harvesting, post-harvest handling and marketing. Beekeeping enterprises established in restored woodland and mountainous ecosystems will improve pollination services, strengthen biodiversity conservation and generate additional household income. The activity addresses the increasing vulnerability of climate-sensitive livelihoods by diversifying income sources and reducing dependence on natural resource extraction. By linking livelihood development with ecosystem restoration, the intervention will strengthen long-term resilience, improve food security, and create

incentives for sustainable management of forests, woodlands, and watershed ecosystems.

3.1.2.3. Mobilise enclosure systems in degraded ecosystems to promote natural regeneration and recovery of ecological functions and explore the use of local/traditional institutions to strengthen management of sensitive ecological systems in selected villages of Baray, Endamaghan and Mang'ola wards. Under Activity 3.1.2.3, the project will support the planting of approximately 100,000 trees over the project duration. These will mainly include indigenous, drought-tolerant, and multipurpose species (e.g., for shade, food, fodder, and NTFPs), established through community woodlots, riverine and hillside restoration, and homestead planting. Final species selection and site-specific targets will be agreed with communities and technical agencies during the PFG and full proposal stage.

Component 4: Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District

This initiative aims to strengthen the resilience of health systems in Baray, Endamaghan, and Mang'ola wards against climate-related health risks. Climate change is increasing the frequency of heat stress, vector-borne diseases, and other health issues, placing additional strain on already strained rural health services. Building climate-resilient health systems is vital for protecting vulnerable populations, including women, children, older adults, and people with disabilities.

The focus will be on enhancing climate preparedness and adaptive capacity through climate-informed health planning, risk mapping, and early warning systems. Health workers will be trained in climate-sensitive disease surveillance and emergency response to climate-related threats like floods and droughts. Facilities will improve WASH infrastructure, adopt solar energy solutions, and upgrade to climate-resilient structures to ensure essential services continue during climate shocks.

Community-level efforts will promote awareness of climate risks through outreach, nutrition education, and behavioural communication. Community health workers and local leaders will disseminate early-warning information and encourage adaptive practices, such as safe water use and heat-stress prevention. Strengthening links among health, environment, and disaster management sectors will foster a holistic approach.

Overall, this initiative will enhance local health systems' capacity to adapt to climate-related risks, reducing morbidity and mortality and improving community well-being in Karatu District.

Outcome 4.1: Improved health and sanitation infrastructure and services for Hadzabe and Datoga (blacksmiths) in three wards of Baray, Endamaghan and Mang'ola in Karatu District

This outcome aims to promote, preserve, and maintain public health, with a view to ensuring comprehensive, functional, and sustainable public health services for vulnerable communities in the Karatu District. This component aligns with the National Health Policy (2007), which aims to improve the provision of health services for all by reducing disability, morbidity, and mortality, improving nutritional status, and increasing life expectancy. The policy recognises that good health is a major resource for poverty alleviation and economic development. This project will also be responding to the Health National Adaptation (HNAP) to Climate change 2018-2023.

Output 4.1.1: Health - Climate change-related risk and vulnerability assessment for the strengthened capacity of the health sector at Karatu District was undertaken.

This comprehensive assessment under this output aims to assess the relationship between climate change and health in the district. By identifying and documenting potential risks and vulnerabilities, the project aims to reveal the multifaceted impacts of climate change on health, particularly among vulnerable populations such as women and children. As the project addresses these pressing challenges, the project's goal is to deepen understanding of how climate change exacerbates health issues in the district. This enriched perspective will inform the project's development of targeted strategies to enhance resilience and improve health outcomes in the project's targeted communities. The key activities include;

4.1.1.1 Vulnerability assessment

The project will undertake a comprehensive climate change and health vulnerability assessment covering the three target wards of Baray, Endamaghan, and Mang'ola to identify climate-sensitive health risks, vulnerable populations, health system gaps, and priority adaptation needs. The assessment will engage district health department, health facility staff, community representatives, women, youth, Hadzabe and Datoga leaders, and other key stakeholders through surveys, focus group discussions, and key informant interviews. The assessment will examine the impacts of droughts, heat stress, water scarcity, poor sanitation, vector-borne diseases, nutrition insecurity, and climate-related disease outbreaks on vulnerable populations. Particular attention will be given to women, children, and elderly persons who face disproportionate climate-related health risks. The findings will generate evidence to support climate-informed planning and decision-making at the district level. Approximately 30 health professionals, 20 community leaders, and representatives from eight target villages will participate directly in the assessment process. The activity will strengthen understanding of climate-health linkages and provide a foundation for targeted adaptation interventions that improve community resilience and health outcomes.

4.1.1.2 :Dissemination of Health and Climate Vulnerability Assessment and formulation of Localized Health Action Plan

The project will translate the findings of the climate change and health vulnerability assessment into user-friendly formats and facilitate the development of a District Climate Change and Health Action Plan. The process will involve district authorities, health sector stakeholders, community representatives, and vulnerable groups to ensure that identified priorities are incorporated into local planning and budgeting processes. At least three stakeholder dissemination workshops will be conducted, reaching approximately 100 participants, including health workers, village leaders, women representatives, youth groups, and district officials. The Climate and Health Action Plan will outline priority adaptation actions, implementation responsibilities, financing opportunities, monitoring indicators, and institutional coordination mechanisms. The action plan will support integration of climate-related health risks into district health planning and strengthen preparedness for future climate shocks, including droughts, heatwaves, water-borne disease outbreaks, and nutrition-related health challenges. The activity will contribute to long-term health system resilience and improved adaptive capacity of vulnerable communities in Karatu District.

Output 4.1.2: *Staff and community awareness on climate-related diseases and adaptation in three wards of Baray, Endamaghan and Mang'ola in Karatu District strengthened*

This output focuses on enhancing the knowledge, skills, and practices of health staff and communities to prevent, prepare for, and respond to climate-related diseases and health risks. Through targeted training, community dialogues, and behaviour change communication campaigns, health workers, community health volunteers, and local leaders will be equipped with practical knowledge of climate-sensitive diseases, including malaria, cholera, heat-related illnesses, respiratory infections, and malnutrition.

The project will develop and disseminate culturally appropriate information, education, and communication (IEC) materials in local languages and utilise community forums, schools, health facilities, and mass media to promote healthy behaviours and climate-resilient practices. Special attention will be given to women, youth, and vulnerable groups to ensure inclusive participation and equitable access to information. As a result, improved awareness and preparedness will contribute to reduced disease incidence, strengthened community resilience, and enhanced adaptive capacity across the three wards. The key activity for this output include;

4.1.2.1 Conduct awareness campaigns on climate and health risks

The project will strengthen climate-health awareness and mainstream climate change adaptation into health planning, service delivery, and community outreach programs across Baray, Endamaghan, and Mang'ola wards. The intervention will train approximately 100 health workers, community health volunteers, village health committee members, and local leaders on climate-sensitive diseases, climate risk communication, disease surveillance, early warning systems, and community-based adaptation measures. The project will also develop and disseminate at least 2,000 Information, Education and Communication (IEC) materials, including posters, brochures, and awareness guides translated into locally appropriate languages. Community awareness campaigns will be conducted through 24 village

dialogue sessions, school outreach programs, health facility education sessions, and local media platforms, reaching approximately 5,000 community members, including women, youth, elderly persons, and Indigenous Hadzabe and Datoga communities. The activity directly addresses increasing climate-related health risks associated with droughts, water scarcity, heat stress, vector-borne diseases, respiratory illnesses, malnutrition and poor sanitation. By improving awareness, knowledge, and preparedness among both health service providers and communities, the intervention will strengthen prevention, early detection, and response to climate-sensitive diseases. Enhanced understanding of climate-health risks will contribute to improved public health outcomes, reduced disease burden and increased adaptive capacity of vulnerable populations facing increasing climate variability and climate change impacts.

Output 4.1.3: *Mainstreaming climate change into health projects and programmes at Karatu District*

Integrating climate change considerations into Karatu District's health strategies, programs, and projects is essential to enhancing the climate resilience of public health systems. This initiative aligns with the National Climate Change Response Strategy (2021), the vision for development by 2050, the National Adaptation Plan (NAP 2025), and the Tanzania Health NAP (2020). By mainstreaming climate action, the project will significantly bolster the district's health sector capacity to make informed, climate-conscious decisions that benefit our community's well-being. The key activity under this output include;

4.1.3.1 Mainstream Climate Change Adaptation into District Health Planning, Programs and Budgeting Processes

The project will support the Karatu District Council to integrate climate change adaptation and climate-sensitive health interventions into district health plans, programs, budgets, and monitoring frameworks. The activity will involve reviewing existing district health planning instruments, developing climate-health integration guidelines, and conducting capacity-building sessions for health planners, facility managers, and district technical staff. Approximately 50 district health officials, health facility managers, planning officers and sector specialists will be trained on climate-health mainstreaming, climate risk assessment, adaptation planning and climate-responsive budgeting. The project will facilitate at least three multi-stakeholder planning workshops to ensure that climate-related health risks and adaptation priorities identified through the Climate and Health Vulnerability Assessment are incorporated into Comprehensive Council Health Plans (CCHPs), district development plans and relevant sectoral strategies. The intervention directly addresses increasing climate-related health risks, including droughts, heat stress, waterborne and vector-borne diseases, malnutrition, and sanitation challenges. By institutionalizing climate change considerations within district health planning and resource allocation processes, the activity will strengthen the long-term resilience of the health sector and improve its capacity to anticipate, prepare for and respond to current and future climate-related health challenges affecting vulnerable communities in Baray, Endamaghan, and Mang'ol

Output 4.1.4: *Climate-smart community health resource centres built, retooled and strengthened*

This project seeks to enhance community resilience by establishing resource centers in eight selected villages. These centres will provide essential services, including first-aid emergency care, training in human nutrition, and spaces for committees to share experiences. In accordance with Adaptation Fund (AF) policies on Undetermined Sub-Projects (USPs), site-specific designs and cost estimates will be finalized during implementation. This approach ensures that the infrastructure is culturally acceptable and climate-resilient while complying with AF Environmental and Social Policy (ESP) requirements.

The proposed Community Health Resource Centres are classified as Unidentified Sub-Projects (USPs) under the category of Small-Scale Community Infrastructure in accordance with the Adaptation Fund Guidance for Projects and Programmes with Unidentified Sub-Projects. As site-specific locations, engineering designs, environmental and social risk profiles, and detailed cost estimates will only be finalized during implementation, each centre will undergo the USP screening, safeguards review, and approval process outlined in Annex 5 prior to construction.

Implementation will follow a two-stage process. First, each centre will undergo participatory site selection and climate risk screening, addressing factors like land tenure, ecosystem sensitivity, and community safety. Only projects meeting AF safeguard criteria will proceed. Next, detailed engineering designs, cost estimates, and Environmental and Social Management Plans (ESMPs) will be developed prior to construction. By employing climate-resilient design standards such as heat-resistant materials and flood-safe sitting, we will ensure long-term functionality. Construction will begin after obtaining safeguards clearance and confirming informed consent from the communities.

This phased USPs approach promotes flexibility while upholding environmental sustainability and social inclusion, enabling continuous learning and adaptation to local conditions for the Hadzabe and Datoga communities. The key activity under this output include;

4.1.4.1 Emergency & first aid services

The project will establish a functional community-level emergency and first-aid service in each of the eight resource centres. Every center will be provided with at least one standard first-aid kit, basic emergency-care equipment, safe storage facilities, emergency referral information, and communication arrangements linking the center with nearby dispensaries, health centers, ambulance services, and members of the Council Health Management Team. At least three community first-aid volunteers will be selected and trained in each village, giving a minimum of 24 trained community first-aid volunteers across the eight villages. Selection will prioritize community health workers, women, youth, and trusted representatives of the Hadzabe and Datoga communities. The volunteers will receive practical training on basic first aid, identification of danger signs, heat-related illness, dehydration, injuries, emergency referral, infection prevention, maternal and child health emergencies, nutrition-related risks, and the health effects of climate-related events. The project will also conduct at least one community emergency preparedness and first-aid awareness session in each village each year. Over the project period, these sessions will help households understand where to obtain immediate assistance, how to respond safely during climate-related emergencies and when to refer affected persons to formal health facilities. The centres will not replace licensed health facilities or provide advanced clinical treatment; instead, they will provide immediate basic assistance, health information and timely referral.

4.1.4.2 Health insurance for 600 people

The project will facilitate access to appropriate health-insurance arrangements for 600 vulnerable community members from the eight selected villages. This represents an indicative average of 75 beneficiaries per village, although the final allocation may be adjusted according to village population, vulnerability levels, and the findings of participatory beneficiary-selection exercises. Beneficiaries will be identified transparently in collaboration with village governments, community representatives, social welfare officers, and relevant health authorities. Priority will be given to low-income households, women-headed households, pregnant women, children, older persons, persons with disabilities and particularly vulnerable members of the Hadzabe and Datoga communities who face financial barriers to accessing essential healthcare. The project will support community sensitization on available health insurance options, beneficiary registration, verification of eligibility, and payment of applicable enrolment contributions or premiums in accordance with national and local health financing arrangements. At least eight village-level sensitization and registration sessions, one in each target village, will be conducted before enrolment. Beneficiary records will be disaggregated by village, sex, age, disability status, and community group while respecting confidentiality and data-protection requirements. The project will work with district health authorities and recognized insurance providers to ensure that the 600 enrolled beneficiaries understand the services covered, where to access care, procedures for renewing membership, and mechanisms for reporting difficulties. Follow-up will be conducted to monitor active membership, utilization of healthcare services, and barriers encountered by enrolled beneficiaries.

Component 5: Enhancing the capacity of Karatu District Council and Communities in the three wards of Baray, Endamaghanand Mang'ola to design and implement climate change adaptation interventions and improve the level of understanding and awareness

Outcome 5.1: *Improved capacity of Karatu District Council, Hadzabe (hunters and gatherers)*

and Datoga (blacksmiths) communities in planning, implementing and monitoring climate adaptation actions.

The outcome and output activities of this component are designed to strengthen the capacities of all actors by improving their understanding of climate change. This will support communities in participating in implementing measures necessary for the success of resilience-building efforts and the continued replication of adaptation strategies in the district. When implemented, this component is expected to make a lasting contribution to the sustainability of climate change adaptation measures across the district and beyond.

The output will facilitate the integration of effective adaptation practices into existing community-level development plans, including village and ward plans. Enhancing the knowledge management system and the capacities for planning, coordination, and implementation at the local level is critical to guaranteeing effective climate adaptation in the district.

Output 5.1.1: *The capacity of Karatu District Council in facilitating public awareness and understanding of climate change-related issues, and in promoting the adoption of resilient climate livelihood practices, strengthened.*

This project will support institutional capacity building for planning and managing adaptation interventions, which is vital for successful implementation. The project will work in an integrated manner to strengthen the capacity of local institutions, farmers' associations, and communities in promoting the adoption of climate-smart practices. At one level, the project will seek to influence and involve local people in adopting climate-smart agriculture by building community capacity. This approach will be especially effective in the proposed project areas, given the well-developed local organizational structures that exist within the communities. Community groups and institutions will be supported through encouragement and technical advice to promote the adoption of climate-smart livelihood practices. In addition, communities will be equipped to implement climate-smart interventions at their camps or homesteads.

The project will further promote learning and knowledge management so that key messages reach as many people as possible. This will be achieved by facilitating the sharing and communication of project results and lessons learned among district councils and local communities. Thus, the project will develop mechanisms to disseminate results and lessons to the wider community in the project districts and across Tanzania. Karatu District Council staff at all levels will be supported in designing and implementing climate change actions. The key activity include;

Activity 5.1.1.1: Conduct a Training and Institutional Capacity Needs Assessment.

The project will conduct one comprehensive training and institutional capacity needs assessment covering Karatu District Council, the three target wards and all eight project villages. The assessment will identify existing knowledge, institutional arrangements, capacity gaps, training priorities and preferred communication approaches relating to climate-change adaptation and resilient livelihoods. The assessment will engage at least 60 stakeholders, comprising approximately:

- 20 district technical officers from relevant departments;
- 6 ward-level officials, with at least two representatives from each of the three wards;
- 16 village leaders, with at least two representatives from each of the eight villages; and
- 18 representatives of community groups, including Hadzabe and Datoga representatives, women, youth, farmers, livestock keepers and other livelihood groups.

Data will be collected through interviews, questionnaires, focus-group discussions, institutional reviews and consultations with community members. The assessment will examine capacities related to climate-risk identification, climate-smart agriculture, ecosystem restoration, water management, resilient livelihoods, climate-related health risks, early warning, participatory planning, budgeting, safeguards, monitoring and knowledge management. The assessment will produce one capacity-needs assessment report and one costed capacity-development plan. The plan will specify the priority skills, target groups, training methods, responsible institutions, timelines and resources required during project implementation. Findings will also be used to establish baseline capacity levels against which improvements can be measured.

Activity 5.1.1.2: Develop Training Materials and Establish Community-Based Trainers.

Based on the findings of the capacity needs assessment, the project will develop a modular climate change training package adapted to the conditions and livelihood systems of Karatu District. The package will

contain at least six training modules covering:

- Basic concepts of climate change and locally experienced hazards;
- Climate-resilient agriculture and livestock management;
- Sustainable natural-resource management and ecosystem restoration;
- Climate-resilient water, health and household practices;
- Community preparedness, early warning and disaster-risk reduction; and
- Participatory adaptation planning, monitoring and documentation of lessons.

The training materials will be prepared in accessible language and supported by illustrations, practical examples, demonstrations and oral facilitation methods. Materials will be available primarily in Kiswahili and, where necessary, adapted to support culturally appropriate communication with the Hadzabe and Datoga communities. The project will produce approximately 200 participant training manuals or booklets, 40 facilitator guides, and at least 500 simplified awareness materials, including posters, leaflets, illustrated messages, and community information sheets. Electronic versions will also be made available to the Karatu District Council for continued reproduction and use after project completion. The project will identify and train 24 Community-Based Trainers, with at least three trainers selected from each of the eight villages. Selection will prioritise respected community members, extension officers, community development personnel, women, youth and Hadzabe and Datoga representatives. Gender and social inclusion will be promoted in the selection process, with a target of at least 50 per cent women and meaningful representation of young people and persons with disabilities where possible. The Community-Based Trainers will undergo an initial training-of-trainers program and receive refresher coaching during implementation. They will be equipped with facilitation materials and simple reporting tools to enable them to organize awareness sessions, support livelihood groups, and document community feedback. Each trainer will facilitate at least two community learning or awareness sessions, resulting in a minimum of 48 community sessions across the eight villages. Assuming an average attendance of 25 participants per session, the sessions are expected to reach at least 1,200 community members directly. The trainers will also provide basic follow-up support to community groups implementing climate-smart agriculture, beekeeping, alternative energy, poultry, rabbit keeping, traditional crops, ecosystem restoration and other livelihood activities supported by the project.

Activity 5.1.1.3: Train Local Government Authorities on Climate Resilience

The project will strengthen the technical and institutional capacities of at least 40 district and ward-level officers and selected village leaders to plan, budget, coordinate and monitor climate-change adaptation interventions. At least two structured capacity-building workshops will be conducted, each involving approximately 20 participants. Participants will be drawn from the district planning, environment, agriculture, livestock, natural resources, water, health, community development, disaster management, finance and monitoring and evaluation functions, together with representatives from the three target wards. Training will cover climate risk and vulnerability assessment, climate-resilient development planning, integration of adaptation into district and community plans, gender and social inclusion, environmental and social safeguards, participatory monitoring, climate budget tracking, resource mobilization, and documentation of adaptation results. Practical exercises will use the project's eight target villages as case studies. Participants will analyze locally experienced climate hazards, identify vulnerable populations and livelihood systems, prioritize feasible adaptation actions, develop indicators, and identify potential sources of financing. Following the training, the project will provide technical support to facilitate the integration of adaptation priorities into:

- One district-level climate-adaptation implementation and monitoring framework;
- Three ward development plans, covering Baray, Endamaghan and Mang'ola; and
- Eight village development plans, covering all project villages.

The project will also support the designation or strengthening of climate-change focal persons within relevant district departments. These focal persons will coordinate information sharing, monitor implementation progress and support reporting on climate-adaptation actions. At least two follow-up coaching and review sessions will be conducted to assess the application of acquired skills, resolve implementation challenges and ensure that agreed adaptation priorities are reflected in local plans, budgets and monitoring systems.

Activity 5.1.1.4: Document and Disseminate Project Results and Lessons Learned

The project will establish a structured knowledge management and communication mechanism to document, package, and disseminate project achievements, challenges, innovations, and lessons learned. Information will be collected from all eight project villages, with particular attention to the experiences of

Hadzabe and Datoga communities, women, youth, livelihood groups and local government institutions. Documentation will cover the effectiveness of livelihood interventions, community participation, climate-resilient infrastructure, ecosystem restoration, institutional capacity development and integration of adaptation into local planning processes. The project will be prepared at least:

- One consolidated project lessons-learning report;
- Four detailed case studies or success stories;
- Two policy or technical briefs;
- Eight village-level results summaries, one for each target village; and
- One digital repository of training materials, photographs, monitoring information, and knowledge products managed in collaboration with Karatu District Council.

Results will be disseminated through at least eight village feedback meetings, with one meeting conducted in each project village, and three ward-level learning forums, with one forum conducted in each target ward. These meetings will allow communities to review project performance, validate documented lessons, and identify practices to continue or replicate. The project will also organize one district-level learning and dissemination forum, bringing together approximately 60 participants from the Karatu District Council, target wards, village governments, community groups, civil society organizations, research institutions, and relevant national or regional authorities. At least four radio programs or public media engagements will be conducted to communicate information about climate change and share project experiences with a wider audience. The project will also use district websites, social media platforms, stakeholder networks, and national climate change forums to disseminate knowledge products. Altogether, the dissemination activities are expected to reach at least 2,000 people, directly and indirectly, through community meetings, learning forums, training sessions, radio programs, and distributed informational materials. Through the completion of the capacity-needs assessment, establishment of 24 Community-Based Trainers, training of at least 40 local government officials and leaders, delivery of at least 48 community learning sessions, integration of adaptation priorities into one district framework, three ward plans and eight village plans, and systematic dissemination of project lessons, the output will strengthen the capacity of Karatu District Council and local communities to sustain and replicate climate-resilient development practices.

Output 5.2.1: *Established Community institutions to assist in collecting climate-related local knowledge (including traditional knowledge) and disseminate relevant climate change adaptation knowledge and information to communities in the three wards of Baray, Endamaghan and Mang'ola*

The project will establish and strengthen community-based climate knowledge institutions in Baray, Endamaghan, and Mang'ola Wards to collect, document, and disseminate climate-related local and traditional knowledge alongside scientific climate information. At least nine Community Climate Knowledge Committees (three per ward) will be formed and operationalized. This project aims to bolster community resilience to climate change by creating and strengthening climate knowledge institutions in Baray, Endamaghan, and Mang'ola Wards. We will establish at least nine Community Climate Knowledge Committees with at least 50% representation of women and youth. These committees will serve as local platforms for climate education and decision-making.

Key activities will include: (

Activity 5.2.1.1: Document Indigenous Climate Indicators and Coping Strategies

The project will conduct a participatory documentation process in the three target wards to identify indigenous climate indicators, traditional forecasting practices, livelihood coping strategies, and locally developed approaches for responding to climate variability. At least nine community knowledge-documentation sessions will be conducted, with one session organized through each Community Climate Knowledge Committee. Each session will involve approximately 20 participants, reaching at least 180 community members. Participants will include elders, women, youth, Hadzabe hunters and gatherers, Datoga blacksmiths and pastoralists, farmers, traditional leaders, and other recognized holders of local knowledge. The documentation process will examine indigenous indicators used to anticipate rainfall, drought, heat, strong winds, changes in water availability, livestock diseases, crop performance, wildlife movements, and other environmental changes. It will also document traditional coping and adaptation strategies related to water conservation, food storage, livestock mobility, traditional crops, medicinal plants, ecosystem protection, and livelihood diversification. Information collected through the sessions will

be reviewed with relevant district technical officers and compared with available scientific climate information. The purpose will not be to replace traditional knowledge with scientific forecasts, but to identify areas where the two knowledge systems can complement each other and improve community decision-making. The activity will produce at least one consolidated indigenous and local climate knowledge report, accompanied by three ward-specific knowledge profiles. The project will also prepare simplified, culturally appropriate materials that present validated climate indicators, local adaptation practices, and key lessons for community use. Consent will be obtained before documenting culturally sensitive knowledge. Traditional knowledge holders and communities will be acknowledged appropriately, and information considered confidential or sacred will not be publicly disclosed without community approval.

Activity 5.2.1.2: Establish Community Climate-Information Hubs and Communication Systems

The project will establish at least nine community climate-information hubs, with one hub linked to each Community Climate Knowledge Committee. The hubs will use existing and accessible community structures such as village offices, community resource centers, schools, health facilities, or other agreed public spaces. Each hub will be equipped with a noticeboard, simplified climate information materials, seasonal calendars, early-warning messages, and locally relevant adaptation guidance. Where feasible, the hubs will also maintain registers for recording climate observations, community feedback and locally experienced climate impacts. The project will establish mobile-phone communication groups or messaging networks for all nine committees. These systems will be used to circulate rainfall forecasts, drought and heat alerts, livestock and crop advisories, public-health messages and other relevant climate information. At least one mobile communication network will be established for each committee, resulting in nine functional messaging networks. The networks may use SMS, WhatsApp, telephone trees, or other communication methods accessible to the target communities. To address limited phone and internet access, information distributed electronically will also be communicated through public meetings, village noticeboards, community-based trainers, local leaders, extension officers, places of worship and public announcements. Messages will be translated or explained orally where necessary to ensure they are understood by Hadzabe and Datoga community members and by people with limited literacy. The committees will conduct at least four structured climate information dissemination rounds annually, in addition to issuing urgent alerts when necessary. Information will be shared before and during key agricultural, livestock, and water management periods.

Activity 5.2.1.3: Train Community Facilitators in Climate Literacy and Communication

The project will select and train at least 45 community climate facilitators, equivalent to five facilitators for each of the nine Community Climate Knowledge Committees. The facilitators will be selected transparently in consultation with village governments and community representatives. Selection will prioritise women, youth, elders, traditional knowledge holders and representatives of Hadzabe and Datoga communities. Women and youth will together constitute at least 50 percent of the trained facilitators. The facilitators will receive training on basic climate-change concepts, interpretation of weather and seasonal forecasts, climate-risk communication, indigenous knowledge documentation, early-warning dissemination, participatory facilitation, inclusion of vulnerable groups and collection of community feedback. Training will also address how to translate technical climate information into simple, practical and locally relevant messages. Facilitators will be supported in explaining what forecast probabilities mean and in avoiding the presentation of uncertain climate information as guaranteed outcomes. At least one initial training-of-facilitators workshop and two refresher or mentorship sessions will be conducted. Each facilitator will receive a basic facilitation package containing simplified training materials, climate-message templates, reporting forms and guidance for documenting community observations. Following the training, each facilitator will conduct or support at least four community awareness and information sessions annually. This will generate at least 180 facilitator-led sessions per year across the project area. The facilitators will work closely with extension officers, village governments, and district technical personnel to ensure that information shared with communities is technically appropriate, timely, and consistent with official climate advisories.

Activity 5.2.1.4: Disseminate Seasonal Forecasts and Adaptation Advice

The project will facilitate the dissemination of seasonal forecasts, early-warning information and practical adaptation advice to at least 4,500 community members annually across Baray, Endamaghan and Mang'ola wards. The indicative annual reach will be approximately 1,500 people per ward. The final distribution will be adjusted according to population size, vulnerability and the geographical coverage of the participating communities. Information will include seasonal rainfall forecasts, drought and heat

advisories, water-management recommendations, climate-smart agriculture guidance, livestock and pasture-management messages, climate-related health information and ecosystem-management advice. Messages will be disseminated through the nine climate-information hubs, mobile-phone networks, village meetings, community facilitators, ward and village leaders, extension officers, local radio and public announcements. At least 50 per cent of the people reached will be women and youth, while specific efforts will be made to reach elders, persons with disabilities and geographically isolated Hadzabe and Datoga households.

Community feedback will be collected after dissemination activities to assess whether the information was received, understood and applied. Each committee will maintain a simple record showing the type of information shared, the communication channel used, the number and categories of people reached and the actions taken by communities. Through the establishment of nine Community Climate Knowledge Committees, nine climate-information hubs, nine mobile communication networks and 45 trained community facilitators, the output will provide a locally owned system capable of reaching at least 4,500 community members annually with relevant climate information and adaptation advice.

Output 5.3.1: *The capacity of the hunter-gatherer and blacksmith communities to plan and make decisions to implement climate-resilient livelihood practices is strengthened.*

The project seeks to strengthen the capacity of the Hadzabe (hunters and gatherers) and Datoga (blacksmiths and pastoralists) communities by enhancing their skills in planning, decision-making, and climate-resilient livelihood practices. We aim to engage at least 200 community members, with a focus on women, youth, and elders, to ensure inclusive participation.

Key activities will include;

Activity 5.3.1.1: Conduct Training on Climate Risks and Sustainable Livelihoods

The project will conduct at least 10 community-level training workshops, each involving approximately 20 participants, thereby reaching at least 200 Hadzabe and Datoga community members. Training will cover locally experienced climate hazards, changes in rainfall and temperature, drought, water scarcity, ecosystem degradation, climate-related livelihood risks and the effects of climate change on hunting, gathering, livestock keeping, traditional crops, blacksmithing and other income-generating activities. Participants will also be introduced to climate-resilient livelihood practices supported by the project, including small-scale climate-smart agriculture, poultry and rabbit keeping, beekeeping, traditional crop production, improved energy technologies, sustainable livestock management, jewelry making, leatherwork, blacksmithing, and sustainable use of natural resources. The training will include practical sessions on household and group planning, selection of viable livelihood options, basic business management, market assessment, savings, risk management, maintenance of productive assets and equitable sharing of livelihood benefits. A simple pre-training and post-training assessment will be conducted. By the end of the training, at least 80 percent of participating community members should demonstrate improved knowledge of climate risks and climate-resilient livelihood planning compared with their baseline assessment. Participants who require further support will receive additional coaching through community facilitators, extension officers and established livelihood groups.

Activity 5.3.1.2: Facilitate Community-Based Planning and Development of Climate-Resilient Livelihood Options

The project will conduct at least 10 participatory community-planning sessions, involving the 200 trained community members and other relevant local stakeholders. During these sessions, participants will use community maps, hazard timelines, seasonal calendars and livelihood analyses to identify climate risks, vulnerable resources, existing capacities and suitable livelihood options. The planning process will ensure that proposed interventions are culturally acceptable, technically feasible, environmentally sustainable, and responsive to the priorities of women, youth, and vulnerable households. Each planning group will develop one community-led climate-resilient livelihood action plan, resulting in at least 10 action plans. Each plan will identify the selected livelihood activity, expected participants, implementation steps, required resources, responsibilities, environmental and social risks, monitoring indicators and

arrangements for maintaining the intervention after project support ends. The plans may cover activities such as climate-smart agriculture, traditional crop production, beekeeping, poultry and rabbit production, improved energy technologies, sustainable livestock management, leather production, jewelry making, blacksmithing, and restoration of community natural resources. The action plans will be reviewed by relevant village authorities, ward officers, and Karatu District Council technical departments to ensure alignment with village and ward development plans and applicable environmental and social safeguard requirements. At least 10 priority livelihood action plans will receive technical support for implementation under the relevant project components. Progress will be reviewed during community meetings and regular mentorship visits.

Activity 5.3.1.3: Establish Producer and Community Decision-Making Groups

The project will establish or strengthen at least 10 functional producer and community decision-making groups, each comprising approximately 20 members. Collectively, the groups will involve at least 200 direct beneficiaries. Where suitable community groups already exist, the project will strengthen them rather than create parallel structures. Each group will develop a clear membership register, leadership structure, constitution or operating rules, activity plan and system for making and recording collective decisions.

The groups will receive support in inclusive leadership, conflict resolution, transparent benefit-sharing, sustainable resource management, financial literacy, savings, market linkages, record-keeping, and monitoring of livelihood activities. Leadership positions will promote the meaningful participation of women and youth. Each group will be encouraged to include at least 50 percent women and youth collectively, while ensuring that elders and traditional authorities remain involved in decisions requiring cultural guidance and traditional knowledge. Each group will maintain basic records on meetings, production, sales, income, expenditures, asset use, challenges, and benefits received by members. The project will provide simplified, illustrated record-keeping tools suitable for participants with varying literacy levels. At least four mentorship and monitoring visits will be conducted for each group during its first year of operation, resulting in a minimum of 40 group mentorship visits. Mentorship will be provided by district technical officers, extension personnel, community facilitators and relevant technical partners. By the end of the project, all 10 groups are expected to have:

- An approved community-led action plan;
- Functional leadership and agreed operating procedures;
- Basic production and financial records;
- Evidence of regular meetings and collective decision-making; and
- At least one climate-resilient livelihood activity under implementation.

Output 5.4.1: Upgrade Karatu District metrological services and its network and infrastructure to the areas surrounding the three wards of Baray, Endamaghan and Mang'ola for the provision of essential data for climate service and early warning systems. In this project, the staff of Karatu DC will be capacitated to be able to collect and use climate information in their decision-making.

5.4.1.1. Addressing Past and Ongoing Unsustainable Practices and Enabling Long-Term Change

The project will conduct participatory assessments in the eight target villages to identify past and ongoing practices that contribute to ecosystem degradation and climate vulnerability. These include deforestation for fuelwood and charcoal, overgrazing, uncontrolled burning, soil and sand extraction, expansion of cultivation into fragile areas and unsustainable harvesting of wild foods and other natural resources. At least eight village-level consultations, one in each project village, will be conducted, involving approximately 25 participants per consultation and reaching at least 200 community members. Participants will include Hadzabe and Datoga representatives, women, youth, elders, livestock keepers, farmers, traditional leaders and village authorities. The assessment will combine local and traditional knowledge with rainfall, temperature, drought and seasonal forecast information produced through the upgraded meteorological network. This will help communities understand how unsustainable practices interact with increasing temperatures, changing rainfall patterns, drought, water scarcity and ecosystem degradation. The project will prepare eight village-specific profiles of unsustainable practices and climate risks, which will guide livelihood support, restoration activities, environmental education and community monitoring. Each village will identify priority behaviour changes and practical alternatives to reduce pressure on forests, grazing areas, water sources and other climate-sensitive ecosystems. The agreed

actions will be incorporated into relevant village development, natural-resource management and climate-adaptation plans.

5.4.1.2. Replacing Unsustainable Practices with Climate-Resilient Livelihoods

The project will support Hadzabe and Datoga households and community groups in replacing environmentally harmful livelihood practices with climate-resilient, economically viable alternatives. At least 200 direct community beneficiaries will receive technical support through livelihood activities such as beekeeping, agroforestry, poultry production, rabbit production, traditional crop cultivation, jewelry making, leatherwork, and improved blacksmithing. The project will establish or strengthen at least 10 livelihood and producer groups, each comprising approximately 20 members. Women and youth will constitute at least 50 percent of group membership, while ensuring the meaningful participation of elders and traditional knowledge holders. The alternative livelihood interventions will include:

- Beekeeping and agroforestry to generate income while supporting woodland conservation;
- Poultry and rabbit production to diversify household food and income sources;
- Craftmaking, jewellery, leatherwork and improved blacksmithing to strengthen culturally appropriate enterprises;
- Climate-resilient traditional crops and kitchen gardens to improve food and nutrition security; and
- Improved natural-resource-based enterprises that do not depend on destructive harvesting.

The project will also support at least 80 Datoga homesteads to adopt improved cookstoves and alternative energy sources such as briquettes produced from agricultural residues, sawdust and other appropriate non-timber materials. The introduction of improved stoves and alternative fuels will aim to reduce participating households' consumption of fuelwood by approximately 40 per cent, subject to verification through household monitoring. Climate forecasts and seasonal advisories will be used to guide decisions on planting, livestock management, water use, fodder availability and timing of livelihood activities. Each supported group will develop a simple climate-resilient livelihood plan and maintain records on production, income, environmental benefits and challenges.

5.4.1.3. Strengthening Community Governance and Natural Resource Management

The project will strengthen community institutions responsible for governing forests, grazing areas, water resources and restored ecosystems in the eight target villages.

At least eight Village Natural Resource Committees will be established, revitalised or strengthened, with one committee serving each project village. Relevant Water User Committees and other local governance structures will also be supported where water infrastructure and shared water resources are involved. Each committee will comprise approximately 10 members, resulting in at least 80 trained committee members. Membership will promote balanced participation by women, youth, elders, Hadzabe and Datoga representatives, persons with disabilities and local leaders. The committees will receive training on:

- Climate risks and natural-resource governance;
- Sustainable grazing and woodland management;
- Prevention and control of uncontrolled fires;
- Management of tree cutting and fuelwood collection;
- Water-source protection;
- Community monitoring and enforcement;
- Conflict resolution;
- Gender and social inclusion; and
- Use of climate and early-warning information in decision-making.

The project will support the preparation, revision, or operationalization of at least 8 community natural resource management plans and relevant village bylaws. These instruments will regulate grazing, fire use, tree cutting, cultivation in fragile areas, woodland access and harvesting of wild foods and other natural resources. Free, Prior and Informed Consent processes will be used when developing agreements affecting Hadzabe territories, traditional practices and access to culturally important natural resources. At least eight community monitoring groups, with one group in each target village, will be established or strengthened to track ecosystem conditions, compliance with agreed rules and emerging climate risks. Women and youth will constitute at least 50 percent of the monitoring group members. The committees will use seasonal forecasts, rainfall data, and early-warning information to guide decisions on grazing, fire

prevention, restoration, water use, and temporary access restrictions.

5.4.1.4. Behavior Change and Environmental Education for Long-Term Impact

The project will conduct an integrated behavior-change and environmental education program across the eight target villages and three wards. At least 24 community awareness campaigns will be conducted during the project period, equivalent to approximately three campaigns per village. Each campaign will reach an average of 50 participants, resulting in at least 1,200 direct community participants. Awareness topics will include:

- Climate change and local climate risks;
- Sustainable harvesting of wild foods and forest products;
- Prevention and control of bushfires;
- Soil and water conservation;
- Sustainable grazing;
- Tree planting and protection;
- Improved household energy;
- Protection of water sources;
- Climate-resilient livelihoods; and
- Interpretation and use of seasonal forecasts and early-warning information.

The project will establish or strengthen at least eight school or youth environmental clubs, with one club associated with each target village. Each club will involve approximately 20 students or young people, directly reaching at least 160 youth. The clubs will participate in environmental awareness activities, tree planting, climate information communication, school demonstrations, and community clean-up or conservation campaigns. At least three practical demonstration sites, one in each target ward, will be established to show the benefits of restoration and climate-resilient practices. Demonstrations will illustrate improved water retention, soil protection, shade provision, fodder production, pollinator conservation, and the integration of trees with livelihood activities. Targeted communication methods will be used for men, women, youth, elders and Hadzabe and Datoga communities. These will include community dialogues, oral presentations, illustrated materials, local radio, mobile messaging, noticeboards and practical demonstrations. Climate information and adaptation messages will reach at least 4,500 people annually across the three target wards through the combined use of community institutions, climate-information hubs, local facilitators and public communication channels.\

5.4.1.5. Protecting Restored Areas to Prevent Re-Degradation

The project will support the protection of restored hillsides, woodlands, water catchments, and other degraded areas to prevent renewed pressure and ensure long-term ecological recovery. Participating communities will establish temporary restoration closures for selected sites for periods of approximately two to three years, depending on ecosystem condition, land-use requirements, and community agreements. The final number and size of closure areas will be determined through participatory site assessment and safeguards screening. The closures will be supported by agreed community rules regulating grazing, tree cutting, fire use, cultivation, and extraction of natural materials. Access arrangements will take account of the customary rights and livelihood needs of the Hadzabe and Datoga communities. At least three rotational grazing plans, one in each target ward, will be prepared and implemented in collaboration with pastoralist communities, village governments, and livestock officers. The plans will identify seasonal grazing areas, livestock routes, water points, resting areas, and sites requiring temporary protection. The project will also establish or strengthen at least eight community woodlots, with one serving each target village, to provide sustainable sources of fuelwood, poles and other tree products and reduce pressure on natural forests. Physical restoration and soil-conservation measures will include bunds, terraces, check dams, gabions, vegetative strips and other appropriate erosion-control structures. The specific quantities and designs will be determined through site-level technical assessments. At least 16 community monitoring visits, equivalent to two visits per village annually, will be conducted to assess vegetation recovery, erosion, fire incidence, grazing pressure and compliance with agreed protection measures. Rainfall data, drought advisories and seasonal forecasts will be used to guide the timing of planting, closure periods, controlled access, grazing and maintenance of restoration structures.

5.4.1.6. Enabling Long-Term Structural Change

The project will consolidate the economic, institutional, behavioural and ecological changes introduced under the preceding activities to ensure that climate adaptation and ecosystem stewardship continue beyond the project period. At least eight village climate-resilience and sustainability plans will be developed or strengthened. These plans will define how communities will continue operating livelihood groups, maintaining restoration sites, applying natural-resource bylaws, managing climate-information systems and financing priority adaptation measures. Karatu District Council will be supported to integrate the project's climate information, early-warning systems, livelihood lessons and ecosystem-management priorities into:

- One district-level climate-adaptation and monitoring framework;
- Three ward development plans; and
- Eight village development plans.

The project will support the designation and training of responsible district and ward officers to oversee the meteorological equipment, climate-data management, early-warning communication, and community adaptation activities. At least one district climate information and early warning coordination mechanism will be established or strengthened, involving relevant departments responsible for environment, natural resources, agriculture, livestock, water, health, planning, community development, and disaster management. The district will be encouraged to allocate annual budgets for equipment maintenance, climate information dissemination, community monitoring, natural resource governance, and continued technical support to livelihood and restoration groups.

A final sustainability assessment will measure changes in:

- Household use of fuelwood and charcoal;
- Adoption of improved cookstoves and alternative energy;
- Participation in climate-resilient livelihoods;
- Incidence of uncontrolled burning;
- Compliance with grazing and woodland rules;
- Vegetation recovery in restored areas;
- Community access to seasonal forecasts and early warnings; and
- Use of climate information in district and village decision-making.

Through these activities, the project will establish a long-term system that combines three ward-level meteorological stations, six community rainfall-monitoring points, eight village institutions, at least 10 livelihood groups, eight natural-resource committees, eight monitoring groups, and climate information reaching at least 4,500 people annually. The combination of improved climate data, resilient livelihood options, community governance, behavior change, and the protection of physical ecosystems will support sustained reductions in tree cutting, charcoal production, uncontrolled burning, overgrazing, and other harmful practices. It will also improve soil fertility, water retention, vegetation cover, biodiversity, and community resilience, particularly among Hadzabe and Datoga communities.

B. Describe how the project/programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project/programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

All five components of this project are designed to deliver environmental, economic, and social benefits, especially at the community level, where local farmers and marginalised groups (including women, youth, and people with disabilities) will directly benefit from improved capacity to adapt to the impacts of climate change. This project also complies with the Environmental and Social Policy of the Adaptation Fund, whereby relevant risks are clearly identified, and mitigation measures are proposed.

i. Beneficiary Estimates

The project will directly benefit 3,000 people, of whom approximately 1,800 are women and 1,200 are men, across the eight targeted villages. In addition, an estimated 30,000 indirect beneficiaries will be reached

through improved access to water, diversified livelihoods, ecosystem restoration, climate-health services, and community awareness activities. This includes approximately 18,000 women and 12,000 men. These estimates reflect the total population of the eight intervention villages and surrounding catchments, ensuring comprehensive coverage of vulnerable households, including women, youth, and Indigenous Peoples. Table 4 below summarises the direct and indirect project beneficiaries.

Table 6. **AF** Core Indicator 1: Number of Beneficiaries

Category	Baseline	Target at Project Completion	Means of Verification
Direct Male Beneficiaries	0	1,200	Beneficiary Registry
Direct Female Beneficiaries	0	1,350	Beneficiary Registry
Direct Youth Beneficiaries (15-24)	0	450	Disaggregated Registers
Total Direct beneficiaries	0	3,000	Midterm and Final Evaluation
Indirect Male Beneficiaries	0	12,000	District Population Data
Indirect Female Beneficiaries	0	15,000	District Population data
Indirect Youth Beneficiaries (15-24)	0	3,000	Demographic monitoring
Total Indirect beneficiaries	0	30,000	Annual Reports

Table 7: *AF Core Indicator 3: Assets Produced, Developed, Improved, or Strengthened*

Asset Produced, Developed, Improved or Strengthened	Baseline	Target at Project Approval	Adjusted Target First Year of Implementation	Actual at Completion
Climate-resilient livelihood units adopting diversified livelihoods (beekeeping, poultry, rabbits, climate-smart crops, eco-tourism)	0	300 livelihood units	To be confirmed during Year 1 baseline assessment	TBD
Community beekeeping groups strengthened and equipped	0	30 groups	To be confirmed during Year 1 baseline assessment	TBD
Boreholes drilled and operational	0	10 boreholes	10 boreholes	TBD
Climate-resilient water supply systems constructed and functional	0	10 systems	10 systems	TBD
Water user committees trained and operational for O&M	0	10 committees	10 committees	TBD
Community-managed ecosystem restoration and conservation areas established	0 ha	600 ha restored and managed	600 ha	TBD
Village ecosystem management plans developed and implemented	0	8 plans	8 plans	TBD
Climate-smart community health resource centres built/retooled/strengthened	0	3 centres	3 centres	TBD
District climate-health vulnerability assessment and action plan developed	0	1 assessment and action plan	1	TBD

Community climate adaptation institutions established and operational	0	8 institutions	8 institutions	TBD
District meteorological and climate information infrastructure upgraded	0	1 upgraded system	1	TBD

The project integrates a gender analysis aligned with the Adaptation Fund Gender Policy (2021) and the AF Gender Guidance Document (2022). Women, men, youth, and Indigenous Peoples were assessed for their climate vulnerabilities, workload distribution, access to resources, decision-making roles, and exposure to climate risks. Women face disproportionate burdens in water and energy collection, limited access to livelihood opportunities, and greater health risks from drought. Men face increased livelihood insecurity due to declining wild foods and hunting opportunities. The project incorporates these findings to ensure gender-responsive access to water, livelihoods, natural resource management, training, and leadership positions, guaranteeing equitable participation and benefit-sharing.

ii. Economic, Social and Environmental Benefits

The project will generate measurable economic, social, and environmental benefits, including a **20–35% increase in household income**, **3 hours/day of time savings** for women through improved water access, and a 60% reduction in fuelwood consumption. Environmental benefits include **planting 100,000 trees**, **restoring 600 ha of community land**, and **sequestering 5,000–7,000 tCO₂eq** over 10 years. Women, youth, and persons with disabilities will benefit from targeted training, inclusive design of community infrastructure, improved health outcomes, and equitable access to all project resources and opportunities.

iii. Beneficiary Selection Criteria

The project will distribute 1,500 beehives across 10 beekeeping groups using a transparent, community-driven process. Groups will be formed through Village Assemblies and FPIC processes in Hadzabe areas, ensuring prioritisation of vulnerable groups, **including** women, youth, and persons with disabilities. At least 50% of participants will be women, and 30% will be youth. Clear eligibility criteria and community validation mechanisms will ensure equitable benefit-sharing and prevent exclusion or elite capture.

Beneficiary selection for the 10 poultry and 10 rabbit groups (20 members each) will follow a transparent, community-led process that prioritises women, youth, Indigenous Peoples, and persons with disabilities. All groups will have at least 50% women and 30% youth. FPIC will guide identification in Hadzabe areas. Selection will be based on vulnerability status, interest, and community validation to ensure equitable access and avoid any negative impacts or exclusion, in full compliance with the AF ESP and Gender Policy.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project/programme.

a) Cost effectiveness from a technical perspective

It is believed that enhancing direct engagement of vulnerable communities in villages to empowers local communities to conceive and drive local adaptation responses directly, build their adaptive capacity to climate and seasonal weather shocks, foster transformation of their livelihood systems to be more climate resilient and allow them to scale up successful climate adaptation actions. This enhanced direct implementation approach, using the force account modality and the self-reliance spirit in villages, is a time-sensitive, efficient, and cost-effective way to deliver concrete adaptation projects with direct local-level benefits in the United Republic of Tanzania. The costly conventional way, the top-down approach of designing and implementing adaptation projects from the central government, usually from the Ministry headquarters, facilitated by multilateral implementing entities, would not permit this level of local ownership, design and implementation.

For instance, adaptation projects such as the Adaptation Fund Project Implementation of Concrete Adaptation Measures to Reduce Vulnerability of Livelihood and Economy of Coastal Communities in Tanzania– which is currently under implementation in Dar es Salaam and the Least Developed Countries Fund (LDCF – GEF) project – Ecosystem = Based Adaptation for Rural Resilience in Tanzania, both implemented under the United Nations Environmental Program (UNEP); and the LDCF

– project under the United Nations Development Program (UNDP) – Strengthening Climate Information and Early Warning Systems in Tanzania for Climate Resilient Development and Adaptation to Climate Change” used top – down approach and their running cost when quantified using elements like fuels costs from Ministry headquarters to project sites in villages and districts, the cost of international consultant fees extremely high are perceived to be extremely higher when compared to the proposed project. This project will enable climate finance from the Adaptation Fund (AF) to flow directly to activities that will be implemented by vulnerable communities themselves in Baray, Endamaghan and Mang’ola wards, and will provide an important complementary adaptation response at the higher levels in the district and the nation at large. Another example is the Africa Adaptation Program (AAP) which was also implemented through UNDP funder by JICA, has limited community involvement and engagement of Local Government Authority at district and village levels. Through has strong concrete adaptation activities, yet it appeared to be reactive and costly as it didn’t tap the in-kind cost contribution from communities using the popular force account modality.

In-contrast the project funded by the African Development Bank (AfDB) = Institutional Support for Climate and Seasonal Weather Information for Adaptation Planning in Mwanga and Same Districts in Northern Tanzania, had concrete adaptation interventions which used Force Account and Ujamaa spirit to deliver activities at local levels. The cost recovery in monetary terms was estimate to be about 49%. However, this project which is now completed was coordinated by Vice President’s Office, more than 500 km away from the project sites in Same and Mwanga districts. This resulted into project administration/execution cost amounting to 30% of the total project cost, nevertheless this project was able to promote transformation of traditional agriculture and water supply in Jipe and Mabilion Villages and increased adaptive capacity of local communities to current and future climate risks. This project, is learning from lessons and experience from this project while recognized that the administrative costs remains well below 9.5%, will amplify the value of requested AF resources by almost over 40%.

Cost – effectiveness of this project will also be delivered through socio-economic and income improvement in communities, efficiency way of timely delivering actions on the ground including effectiveness and sustainability of the proposed climate interventions. For example, current approach to climate related risk management and poverty reduction projects in Karatu have been mostly reactive based on time events which in most cases are not sustainable. Options like supplying food aid to communities as adaptation actions to respond on the vagaries in climate and seasonal weather is mostly reactive and costly relative to promotion of climate resilient – water supply with the view of transforming rural livelihoods and improving income generation. Socio-economic and income generation expected from integrated forest management will be effective, efficiency and economical way to realize adaption benefits compared to traditional ecological restoration project in the United Republic of Tanzania in the 1980s, like the costly HADO program which failed due to limited integration of livelihood activities. For example, preliminary socio-economic analysis on the proposed project activities (climate resilient-rural water supply, bee keeping, poultry and rabbit farming, when implemented using Force Account modalities have highest internal rates of return beyond 40 – 89% higher benefit; cost ratios, currently estimated to be up to 27:1500 for concrete actions under components 1, 2 and 3. It is therefore obvious that, the proposed project is cost – effective and the project’s investment will accrue large benefit for life and livelihood quality improvement vis-à-vis the traditional and existing way of implementing adaption projects in the United Republic of Tanzania.

Thus, the project evaluated several alternative options for addressing climate vulnerability in Karatu District. The selected measures are the most cost-effective, environmentally sound, and socially appropriate, particularly for vulnerable groups and Indigenous Peoples. When compared with realistic alternative options in the same sector and geographic context, the selected combination of decentralized water access, climate-resilient livelihoods, and community-based ecosystem restoration provides:

- i. More beneficiaries reached per dollar invested,
- ii. Lower recurrent costs,
- iii. Stronger alignment with Indigenous and local livelihoods, and
- iv. Greater long-term resilience and environmental gains.

Table 8: Project costs and benefits

Component	Project Cost (USD)	Concrete adaptation benefits	Avoided losses	Trade offs
2. Enhancing climate-resilient rural water supply systems in vulnerable Hadzabe (gatherers and hunters) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghan Wards in Karatu District	945,893	· Easy and reliable access to domestic water · Availability of water for livestock and crop production · Improved food availability · Increased food and nutrition security · Reduced time for communities to collect water, hunt and gather · Increased boma income/assets · Improved experience and knowledge on water resource management · Increased resilience to the impacts of climate change	· Food and nutrition insecurity · Loss of crops and livestock produce · Loss of boma income · Increased poverty · Reduced resilience to climate change	· Lack of reliable and sufficient source of water which increases government spending · Increase government spending of humanitarian food supplies for communities that have affected by loss of water and food
1. Developing integrated climate resilient livelihood diversification systems in the selected sites in three wards of Baray, Endamaghan and Mang'ola	534,463	· Reduced vulnerability to climate change impacts · Improved food and nutrition security · Improved management of forest ecosystem · Reduced income poverty · Enhanced resilience to climate change impacts	· Food and nutrition insecurity · Extreme poverty · Ill health · vulnerability to climate change impacts	· Deforestation · Increased vulnerability to climate change · Increased cost of adaptation for the government to provide food and other social amenities to vulnerable communities
4.Improving climate related health services and awareness for Hadzabe and Datoga (Blacksmith) communities in 3 wards of Baray, Endamaghan and Mang'ola	165,320	· Improved access to health services · Improved sanitation · Increased productivity · Reduced vulnerability to climate related health incidences · Increased resilience to climate change effects	· Disease outbreaks · Vulnerability to climate change impacts · Food and nutrition insecurity · Loss of Life	· High incidence of diseases outbreak · Poor health which may affect productivity of communities · Increased government spending to provide health services to vulnerable communities

Component	Project Cost (USD)	Concrete adaptation benefits	Avoided losses	Trade offs
3. Improve ecological and environmental services and functions	128,569	- Increased natural resource management capacity - Increased forest cover - Increased boma income - Enhanced resilience to climate change	- Degradation of natural resources - Loss of forest cover - Loss of livelihood - Loss of life due to floods and drought - Food and nutritional insecurity	- High loss of biodiversity - Increased cost of adaptation for flood and drought victims - Increased cost of providing food for hunger victims - Increased cost of health services for victims of extreme weather events - Land degradation
5. Building institutional capacity of Karatu District Council staff and Hadzabe and Datoga (blacksmith) communities in planning, implementation of climate change adaptation actions	344,400	- Improved capacity of Local Government Authority and communities to plan and implement resilient climate adaptation actions - Improved coordination of climate interventions at local level - Increased capacity to communicate project results and key lessons learnt - Increased resilience to climate change	- Increased vulnerability - Inability to predict future climate change impacts - Loss of livelihoods - Food and nutrition insecurity - Abject poverty	- Increase numbers of victims of climate change as a result of Local government and community poor planning and limited preparedness - Reduced adaptive capacity of communities - Increased adaptation cost - Failure of adaptation interventions as a result of not integrating climate change into District of plans and budgets

Cost effectiveness from a project management perspective

The Project Management Unit (PMU) is proposed to be based in the project area at the district headquarters. As much as possible the project will utilize the existing government staff available at the district and at TAEPO including to be hosted in the buildings of the district headquarters. No new staff is expected to be hired; no pensions and insurances will be paid by the requested fund under this project as those costs are already covered by Karatu District Council and TAEPO. However, the project will pay some reasonable top up salaries only for project key staffs who will be placed in the PMU. This is viewed to be cost effective and promote best use of resources by reducing project management costs. Both Karatu District Council and TAEPO may hire the services of other experts at reasonable rates. Utility bills of project staff will be covered by Karatu District Council and TAEPO. This will cut-off the project running cost by around 25 – 40%.

c) Cost-Effectiveness and Alternative Options Considered

The proposed project was designed to maximize cost-effectiveness by prioritizing low cost, high-impact, community-led interventions that require minimal recurrent spending and build long-term resilience. The selection of climate-resilient livelihoods (beekeeping, poultry, rabbit production, briquette making, agroforestry) reflects activities with proven high benefit-to-cost ratios, especially in remote and Indigenous contexts where capital-intensive solutions are not sustainable. Boreholes will use solar pumping to eliminate fuel and maintenance costs associated with diesel systems, and ecosystem restoration relies on Assisted Natural Regeneration (ANR), which is significantly more cost-effective than full replanting. Leveraging existing village committees, district technical staff, and community structures eliminates parallel systems and reduces administrative overheads. These approaches ensure that investments generate lasting social, economic, and environmental benefits at the lowest feasible cost.

Several alternative measures were assessed during project design but were not selected due to higher costs, lower feasibility, or reduced sustainability for vulnerable groups. Mechanized irrigation systems, large-scale afforestation, and commercial livestock schemes were excluded because they require high capital investment, high maintenance, and are unlikely to be maintained by poor or Indigenous households. Likewise, purchasing machinery-intensive processing equipment or introducing unfamiliar value chains posed high risks of failure. The project instead prioritised options that align with Hadzabe and Datoga cultural practices, require minimal inputs, and can be maintained locally using existing skills and village governance frameworks. These selected options offer a superior cost-effectiveness profile compared to the discarded alternatives and ensure that climate adaptation benefits can be sustained beyond the project's duration.

d) Comparison with Other Possible Interventions in the Same Sector and Region

In designing this project, several other intervention options used in similar semi-arid areas of Tanzania were considered and found to be **less cost-effective** or less appropriate for Hadzabe and neighboring communities than the proposed package.

1. Large Centralized Water Supply Schemes vs. Decentralized Boreholes

An alternative option would have been to invest in a **single large, piped water scheme** supplying multiple villages. While technically feasible, capital and operation costs are substantially higher, and such systems are less suited to dispersed Indigenous settlements.

- Large, piped schemes typically require **3–4 times higher capital investment per beneficiary** and high recurrent energy and maintenance costs.
- By contrast, the proposed **solar-powered boreholes and community-managed water points** can provide basic water access at a lower cost per household, with simple O&M and strong local ownership.

Given the scattered nature of Hadzabe settlements and the project budget, decentralized boreholes are more cost-effective and less risky.

2. Cash Transfers and Input Subsidies vs. Climate-Resilient Livelihoods

Another option would have been to focus on **cash transfers** or **short-term input subsidies** (e.g. fertilizer, seed packages) as the primary adaptation measure.

- Cash transfers can provide temporary relief but typically require recurring annual budgets and do not necessarily build skills, assets, or diversified income streams.
- Input subsidies for conventional agriculture can increase production but often bypass Indigenous groups and can increase dependence on rainfall and external inputs.

By contrast, the proposed livelihood diversification package (beekeeping, poultry, rabbits, agroforestry, crafts, briquettes) offers:

- One-off or short-term investment per household,
- Expected **20–35% increases** in household income, and
- Low environmental footprint and good cultural fit with Hadzabe and neighbouring communities.

This makes the chosen approach more cost-effective over the project lifetime.

3. Contractor-Led Tree Planting vs. Community-Based Ecosystem Restoration

A further alternative would have been to rely on **contractor-led afforestation and mechanised land rehabilitation**.

- Contractor-driven tree planting in similar settings often costs 3–5 times more per hectare than community-based assisted natural regeneration and has lower survival rates due to limited local ownership.
- Mechanised rehabilitation (heavy machinery, extensive earthworks) is expensive and less suitable for fragile hillslopes and culturally important areas.

The project instead prioritizes **community-based restoration and Assisted Natural Regeneration (ANR)**, complemented by targeted enrichment planting and low-cost soil and water conservation measures. This approach:

- Reduces per-hectare costs significantly,
- Achieves higher survival through community stewardship, and
- Directly involves vulnerable households in paid restoration work and benefit-sharing

D. Describe how the project/programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The project being proposed here reflects communities, district, and national issues and therefore is consistent and in line with the national vision for sustainable development, policies, plans, strategies, programs, and actions. For instance this project is well reflecting top most five priorities (adaptation contributions) listed under the current Nationally Determined Contributions, the NDCs commits to: Up-scaling the level of improvement of agricultural land and water resources management; Increasing yields in an environmentally sustainable way through inter alia climate smart livelihood interventions; providing accessible mechanism for vulnerable communities such Hadzabe (hunters and gatherers) and Datoga (Blacksmith) against climate related shocks; and strengthening knowledge systems, extension services and water supply and health infrastructure to target climate actions, including

through the use of climate services and traditional knowledge. For water-related contributions, the NDCs indicate promoting integrated water resources development and management practices and the development and sustainable exploitation of groundwater resources. For livestock actions, the NDCs intend to promote climate resilient traditional and modern knowledge for sustainable management systems and practices; enhance climate resilient livestock infrastructure and services, promote livelihood diversification of livestock keepers; and increase livestock production through climate smart livelihood agriculture interventions. For ecosystem and forestry-related commitments, the NDC will be safeguarding the ecosystem services, including through the promotion of alternative livelihood options to forest-dependent communities. Therefore, all five components of this project and their output activities are strongly supporting implementation of the mined Contributions (NDCs, 2021) and the National Climate Change Response Strategy 2021 as all of them are consistent with the Adaptation Contributions.

In addition, this project is also reflects the top three adaptation priorities listed under the National Adaptation Programme of Action (NAPA, 2007), reflects the first and second priority sectors identified under the intended Nationally Determined Contributions (INDCs, 2014) and the National Climate Change Response Strategy (URT, 2021) that are most vulnerable, which need urgent and integrated adaptation measures. The project is also in consistency with the Tanzania Development Vision 2025, National Five-Year Development Plan (FYDP) III (2020/2021- 2026/2026), the First and the Second National Communication submitted to the United Nations Framework for Convention on Climate Change (UNFCCC), the National Strategy for Growth and Poverty Reduction (MKUKUTA II), National program under the Tanzania Social Action Fund (TASAF). The Roadmap of the National Adaptation Plan (NAPs), Karatu District Strategic Plan (2017/2018- 2021/2022). All these national and district documents take account and recognize the challenges and negative effects posed by climate change. In this way there is a need to implement climate actions at local levels, where vulnerable people, particularly women and children who suffer the most and are now being forced into deeper poverty challenges as a result of increased climate vagaries. This project is also linked to sustainable Development Goals (SDGs); particularly SDG 1: End poverty in all its forms everywhere; SDG 2; End hunger, achieve food security and improved nutrition, and promote sustainable agriculture; SDG 3: Ensure healthy lives and promote wellbeing for all ; SDG 5; Achieve gender equality and empower all women and girls; SDG 6; Ensure availability and sustainable management of water and sanitation for all, SDG 13; Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change); and SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. In the same way, the proposed project is in line with the Agenda 2033; the Africa we want which promotes issues of sustainable and inclusive economic growth and to take actions to reduce the effects of climate change in rural areas. Additionally, the linkages to the national and sub national/district policies and other poverty reduction strategies can be easily seen at each component.

The project is also consistent with the current Karatu district plans, which thrive to reduce poverty among communities in this climate impacted area, a strategy to introduce poultry and rabbit farming, production of traditional and modern crops will ensure food and nutrition security and reliable income and resilience to climate change. The project will support implementation of this strategy and a plan is sought to have satisfactory extension services.

E. Describe how the project/programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

The proposed project is aligned with relevant national technical standards and meets requirements/standards stipulated by Environmental Management Act (Cap. 191 of 2004) and its subsequent Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations (G.N. No. 349 of 2005). Since the project is mainly aiming at improving the state of the environment in Karatu district as well, it will not generally have negative environmental impacts. It is clearly

expected to have positive environmental impacts through improving the environment and ecosystems of the area, through improving the sustainable management of land, terrestrial and other environmental systems through addressing issues of community resilience to climate change and improving community livelihoods.

The project also took into consideration of the broader of the National Guidelines for the Preparation of Water Safety Plans – Resilient to Climate (2015). Other pertinent national standards for rural water supply, agriculture, forestry and beekeeping, environment, agriculture and food security and village land use planning/rural land tenure systems will be highly considered at advanced stage of designing of this project and during implementation. In that way, the proposed project will be fulfilling vital national policies, plans, strategies and programmes set by the United Republic of Tanzania including plans and bylaws formulated by Karatu District Council. Similarly, this project is relevant to the Environmental and Social Safeguard policy of the Adaptation Fund (AF) and any other Environmental and Social Safeguard Policies of International and UN agencies such as the World Bank as its intervention will enhance sustainable development benefits while avoiding unnecessary harm to the environment and communities.

All activities under each component will facilitate social security of the riparian communities and veracity of the environment. However, the executing entities (Karatu District Council and TAEPO have adequately screened this project proposal and will place this Adaptation Fund. This is because there is no any component of this project which indicates any serious risk to the environment or social systems and on public health.

Compliance with National Technical Standards for Water Interventions

All water-related interventions—including borehole siting, drilling, testing, equipping, solar pumping, and distribution—will comply fully with the national technical standards and regulatory frameworks of the United Republic of Tanzania. These include:

- 1. Water Supply and Sanitation Act (2019)** – governing water supply infrastructure development, performance standards, and supervision by the Ministry of Water and District Water Engineers.
- 2. National Rural Water Supply Design Standards (MoW, 2021)** – specifying minimum requirements for borehole depth, casing, pump specifications, hydraulic capacity, disinfection procedures, and community water point design.
- 3. National Groundwater Development Guidelines (MoW, 2014)** – outlining technical protocols for hydrogeological surveys, site selection, aquifer protection, drilling methods, borehole construction, pumping tests, and groundwater quality analysis.
- 4. Drilling and Groundwater Licensing Regulations** – requiring the use of licensed drilling contractors, certified hydrogeologists, and submission of borehole completion reports to the Ministry of Water.
- 5. Environmental Management Act (2004) and Water Resources Management Act (2009)** – ensuring environmental safeguards, protection of water sources, and sustainable abstraction levels.
- 6. Solar Water Pumping Guidelines (MoW, 2020)** – guiding selection, sizing, installation, and maintenance of solar pumping systems for rural water supply.
- 8. Village Land Use Planning Guidelines (MLHSD)** – ensuring boreholes and water points are sited according to approved land use plans and community consultation processes.

All boreholes will be drilled by **licensed contractors**, supervised by the **District Water Engineer**, and subjected to mandatory **pumping tests, water quality analysis, and structural integrity inspection**

before commissioning. Water points and storage tanks will follow **gender-sensitive and disability-inclusive design standards** to ensure safe and equitable access.

The project will therefore meet and maintain all national technical, environmental, and social standards throughout implementation.

F. Describe if there is duplication of project/programme with other funding sources, if any.

There is no any duplication of this project with other funding sources. This project will rather complement Any efforts geared to foster adaptation actions in Karatu district for climate resilient livelihoods thematic area. Preliminary meetings and discussions were conducted with various stakeholders at village, ward, division, district and national levels to confirm the existence of potential synergies of proposed activities with various national development and climate action, which have suffered absence of funds. The AF resources will therefore build on ongoing district development programming as operationalized through its investment and operational budgets. Karatu district like any other Local governments receive funding from the national government and ministries through core programmes as well as through more targeted projects (including donor -supported projects). The proposed project will build on core operational funding delivered to the district through the departments of agriculture, planning, environment, forestry, tourism, beekeeping and Rural Water Supply Agency (RUWASA) in Karatu. This will also build on more targeted projects or initiatives being implemented in Karatu particularly those funded by adaptation fund such as; Bunda Climate Resilience and Adaptation Project currently being implemented in Bunda Districts; Enhancing Climate Change Adaptation for Agro-Pastoral Communities currently being implemented in Karatu District, Enhancing Climate Change Resilience of Coastal Communities of Zanzibar currently being implemented in Unguja and Pemba Islands.

Other Programmes and initiatives that are currently being implemented include; Livestock Development in collaboration with IFAD which work with livestock keepers, agro-pastoralists and other land users in Tabora, Shinyanga, Ruvuma regions to support integrated dry land-based livelihoods including access to markets and income generation while providing ecologically sound strategies for resolving conflicts between farmers and pastoralists; Institutional Support for Climate and Seasonal Weather Information for Adaptation Planning in Mwanga and Same districts, Northern Tanzania the project funded by the African Development Bank (AfDB), had concrete adaptation intervention which used Force Account to deliver activities at local levels. Therefore, AF resources under this project are expected to build synergies on the ground particularly for component 1, 2, 3 with activities related livelihood improvements and ecological restorations, rather than duplication of resources. However, there is no geographical duplications with the sited donor funded project. There is no fund which has been allocated to implement this project, except this application to the Adaptation Fund.

(a) Complementarity with other projects/programmes

KARAHADA complements the Tanzania Agriculture Climate Adaptation Technology Deployment Programme-TACATDP (GCF–CRDB) by preparing vulnerable producer groups to later access climate-smart technologies and finance. It draws on ecosystem-based adaptation lessons from the GCF–UNHCR Kigoma project and the Usangu Community-Led NBS project to strengthen Component 3 on landscape restoration.

The project will use improved climate and weather information generated under the Systematic Observations Financing Facility (SOFF) Programme to support Component 4 on community early warning. KARAHADA is fully aligned with the World Bank SCALE programme, applying locally led climate

action tools such as (Climate Infused Opportunities to Development (ciO&OD), Local Climate Action Plans (LCAPs) and serving as a demonstration model for Indigenous-inclusive resilience investments.

In the agriculture sector, the project builds on ASDP II, aligning its agroforestry, small livestock and value-addition activities with national value chain priorities and district-level extension systems. These synergies ensure complementarity, avoid duplication, and enable scaling of successful models beyond the three target wards.

Table 9: Relevant Projects/Programmes and Synergies with KARAHADA

Project / Program and Geographic Area	No Duplication Justification	Lessons Learned, Synergies and Complementarities
TACATDP (GCF–CRDB), Tanzania	No duplication exists. TACATDP focuses on climate-smart agriculture financing and technology uptake at national scale, while KARAHADA targets Indigenous Hadzabe and Datoga communities in Baray, Endamaghan and Mang'ola wards through integrated livelihood diversification, water security, ecosystem restoration, health adaptation and capacity strengthening interventions.	Lessons Learned: Access to finance is more effective when linked with extension services, producer organization development and market access. Synergies and Complementarities: KARAHADA will prepare producer groups and livelihood beneficiaries to access climate-smart technologies, financial services and value-chain opportunities promoted through TACATDP, particularly under Component 1 livelihood diversification interventions.
SWAHAT Project, Tanzania	No duplication exists. SWAHAT primarily focuses on strengthening climate-resilient WASH systems in different intervention areas, while KARAHADA provides integrated climate adaptation support to Hadzabe and Datoga communities in Karatu District.	Lessons Learned: Sustainable WASH investments require strong community ownership, operation and maintenance systems, and integration with health interventions. Synergies and Complementarities: KARAHADA will apply lessons on climate-resilient water supply, sanitation management and community health promotion to strengthen Outputs 2.1.1, 2.1.2 and 4.1.1.
Enhancing Community Resilience through Improved Ecosystem Management and Livelihood Diversification, Kongwa District (Adaptation Fund)	No duplication exists. The project was implemented in Kongwa District, Dodoma Region, targeting different ecosystems, communities and climate risks. KARAHADA targets Indigenous Peoples and vulnerable communities in Karatu District.	Lessons Learned: Ecosystem restoration is more sustainable when linked with livelihood diversification, community ownership and local governance systems. Synergies and Complementarities: KARAHADA adopts successful approaches in ecosystem restoration, community-based adaptation, climate-resilient livelihoods and participatory natural resource management under Components 1, 3 and 5.
GCF–UNHCR Ecosystem-based Adaptation Project, Kigoma Region	No duplication exists. The project targets refugee-hosting communities in Kigoma Region, whereas KARAHADA focuses on Indigenous Hadzabe and Datoga communities in Karatu District.	Lessons Learned: Ecosystem-based adaptation interventions are more effective when Indigenous knowledge and community participation are integrated into project implementation. Synergies and Complementarities: KARAHADA will replicate community restoration approaches, participatory planning tools and ecosystem management practices under Component 3.
SOFF Programme (TMA), Tanzania	No duplication exists. SOFF supports climate observation systems and climate	Lessons Learned: Timely climate information significantly improves adaptation planning and

	information generation, while KARAHADA finances community-level adaptation investments.	preparedness. Synergies and Complementarities: KARAHADA will utilize climate forecasts and climate information services generated through SOFF to strengthen climate risk management and decision-making under Component 5.
SCALE Programme (World Bank), Tanzania	No duplication exists. SCALE focuses on strengthening locally led adaptation systems and local government climate planning, while KARAHADA delivers targeted adaptation investments for Indigenous Peoples and climate-vulnerable communities.	Lessons Learned: Locally led adaptation approaches improve sustainability, ownership and accountability. Synergies and Complementarities: KARAHADA will serve as a demonstration model for Indigenous Peoples-inclusive locally led adaptation and benefit from planning tools and institutional frameworks promoted through SCALE.
ASDP II, Tanzania	No duplication exists. ASDP II provides sector-wide agricultural development support and does not finance the integrated adaptation package proposed under KARAHADA.	Lessons Learned: Farmer field schools and extension services improve adoption of climate-smart agriculture practices. Synergies and Complementarities: KARAHADA will align livelihood diversification, climate-smart agriculture and extension support with ASDP II priorities and district agricultural development plans.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

Issues of learning and knowledge management, including dissemination of lessons learned, are captured under component five, which aims to strengthen local institutional capacity for effective adaptation strategies and reduce risks associated with climate-induced socio-economic failures in Karatu district. Hence, this project will utilize a fraction of the requested funds to build core knowledge capacity and to disseminate results and outcomes, including sharing lessons that will be generated by the project.

The project will strengthen Knowledge Management (KM) by systematically documenting lessons learned from the new livelihood models (Component 1), water governance arrangements (Component 2), and ecosystem restoration practices (Component 3). Lessons will be captured through a participatory, bottom-up approach, drawing on participatory reviews, technical monitoring, and the project Monitoring, Evaluation and Learning (MEL) processes, so that experiences flow from the community level upward to district and national platforms. Tracking will be undertaken continuously throughout implementation: routine data will be captured quarterly through participatory field reviews and the project MEL system; thematic lessons from the three components will be documented through annual learning reviews; and a consolidated synthesis of lessons learned will be prepared at mid-term and at project completion.

Responsibility for KM will be under CAN Tanzania, as the Executing Entity responsible for monitoring, evaluation, and learning. CAN Tanzania will lead the systematic tracking of project experiences through the quarterly, annual, and end-of-project processes described above, with support from the Project Coordination Unit (PCU), the District M&E Officer, and the Gender and Social Inclusion Specialist.

The knowledge generated will be packaged into a range of products, such as case studies, technical briefs, training manuals, videos, other audiovisual materials, and community guidelines, and disseminated across all levels through the activities set out under 5.1.3, 5.1.4, 5.2.1, 5.3.1, and 5.4.1. At the community and inter-village levels, results will be shared through community centers, on-site demonstrations, tours and

visits, and short-term technical trainings, with participatory approaches and community involvement encouraged through volunteering and in-kind contributions to project activities. At the district level, lessons will be communicated through district learning forums, seminars, meetings, and workshops. At the regional, inter-district, national, and international levels, positive results and outcomes will be disseminated through progress reports, project briefs, publications in peer-reviewed journals, and through national platforms and digital media. Newspapers, radio, and video documentaries will further be used to communicate the project's techniques, achievements, and lessons.

To ensure that the knowledge generated is sustained after the project concludes, all KM products will be deposited with Karatu District Council, the Village Natural Resource Committees (VNRCs), and the water and beekeeping user groups, and will be embedded in District and Village development plans so that they continue to guide local planning. The District Council, through its existing planning and natural-resource departments, will assume custodianship of the KM repository and will continue to update and disseminate materials using its recurrent budget. Lessons will also be channeled to national programs, including SCALE, TACATDP, ASDP II, and SOFF, to support wider replication and policy uptake beyond the project lifetime.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund. *Consultation during the development of the KARAHADA project proposal*

Stakeholder consultation for this project was done in three phases. This include consultation with Hadzabe (hunters and Gatherers and Datoga (blacksmith); consultation with Local Government officials and leaders and consultation with other actors who have been working in Karatu District or are currently working in Karatu. These consultations were preceded by national level consultation where representatives from Government Ministries and Agencies, Academia and researchers were consulted. The aim of this stage of consultation was to present the opportunity for this round of funding and agree on the sectors/ Districts to implement projects which will support to enhance resilience of Tanzanians. This meeting was in July 2021. where participants were in consensus that Karatu district be one of the targeted District and in particular the Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities. The list of participants to this workshop is attached as Annex 2

Community consultations were conducted from 12th -17th July in Karatu. This participatory process was complemented by field visits to different Hadzabe (hunters and gatherers) and Datoga (blacksmith) camps and homesteads. The areas visited include Quangdeng, Dumbachan, Mbuga Nyekundu and Mikocheni with the aim of getting more physical observations and eyewitness on the full picture of the landscape, socio – economic interactions and vulnerabilities, needs and challenges of these communities. The consultations assisted in soliciting viewpoints and to better understand the problem, its root causes and potential interventions that would achieve greater resilience to climate change shocks in Karatu district and for Hadzabe and Datoga communities. Consultations were done to women and men separately and then joint consultations were done to give voice to the marginalized group or individuals. These meeting for pre-designing of this project assisted to perform quick analytical scanning of gender and environmental related issue as well as qualitative analysis and reviews on how climate change affects woman and men differently to facilitate proposing gender sensitive actions. The list of community members and traditional leaders consulted is attached as Annex 2.

The project formulation team conducted a two intra – and inter-departmental meetings in the district with senior officials and technical experts in Karatu as well as at TAEPO offices in Arusha to share and exchange views on the proposal, and to jointly identify and align priorities for the development of the full proposal. Thereafter, a series of virtual consultations among key technical and legal staffs between Karatu district council and TAEPO were also conducted. The district and council leadership and head of departments were also involved in site selection of the project. Relevant face to face virtual consultations on processes involved experts from accounting, procurement, planning, agriculture, water, tourism forestry and beekeeping, land use and settlements, livestock, environment and cooperatives sections. The meetings

also involved the representatives of NGOs working in Karatu. Because of COVID 19 pandemic follow up consultations were made by phone. This included consultation with Division, ward and village leaders (the list of district experts and other partners involved in the consultation process is attached as Annex 2). Further consultations continued with the staff of NEMC where the proposal was evaluated and refined to align with development policies and plans and strategies of the United Republic of Tanzania and with that of the Adaptation Funds.



Figure 3. Project Formulation Team, Technical Experts from Karatu District Council in one of technical sessions as part of consultative process conducted in Karatu District Headquarters.



Figure 4. Discussions with Hadzabe (hunters and gatherers) community members



Figure 5. Datoga (blacksmith) young men at work.

Key suggestion and concerns from stakeholders.

- i) Stakeholders and beneficiaries from Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities, technical staff from Karatu district council, government ministries, agencies and higher learning institutions indicated factors to be taken into consideration for successful planning and implementation for KARAHADAproject :

- Ø The project must adopt a participatory approach, best practices from design to project implementation. This can be achieved by applying lessons from community experience and local knowledge. This, in turn, will assist in attaining the main goal of the project, "increasing resilience of vulnerable communities at the village level".

- Ø Almost 100% of all stakeholders and individual experts proposed to apply **Force Account Implementation Modality** from the design to implementation stage of this project. The approach is being widely applied by the Government of the United Republic of Tanzania and it has shown success in terms of value for money and project completion rates. This modality is now being adopted by other actors particularly for infrastructure development projects. This modality is viewed as cost effective and creates a sense of community ownership and practical involvement of communities by making themselves available for physical works with modest payments or with no payment and in-kind contributions through contribution of building materials such as collection of gravels, sands and willingness for working in groups.
 - Ø The project should be hosted at Karatu district headquarters and use existing office accommodation and work with district technical staff together with TAEPO staff. The Finance should be channeled through a special account guided by the Government Financial Standard Operating Procedures.
 - Ø The District Development Plan (DDP) is a key local planning process the project must align with. This could be achieved by locating the project implementation unit at Karatu district and district planners will be part of the Project Steering Committee.
 - Ø Although the entire community at the project site is vulnerable to climate change impacts, the project proposal preparation team and all stakeholders agreed that it was more humane and sensible to have provisions for supporting vulnerable households who are most vulnerable than others, such as youth/ children, female-headed families, people with disability and those with special needs.
- ii) Stakeholders discussed and analysed project interventions and pointed out that project components should address climate change risks, particularly on issues related to water security and water resources management, food security, environmental and ecosystem management, and strengthening community and local government institutions for planning and implementing climate change resilient interventions as urgent needs and priorities. Therefore, they all agreed that;
- Ø The proposed activities/interventions for the project components in the approved full proposal are **urgently needed** and therefore reaffirm the proposed components, expected concrete outputs, indicated activities, and expected project outcomes.
 - Ø For interventions related to food security and income generation, stakeholders and direct beneficiaries advised the project to adopt an implementation approach that supports both **on-farm and off-farm livelihood activities**.
 - Ø Since Karatu district has in place a plan to diversify livelihood for its community members, stakeholders and district experts agreed that the proposed interventions under component 2 should consider activities to facilitate the **availability of traditional and improved seeds and stock**.
 - Ø For the **improvement** of beekeeping interventions for food security and income generation, stakeholders requested that **modern beehives** be used to increase honey productivity. These best practices can also be adopted by other neighbouring communities.

Table 10: Some perceived challenges and possible solutions for project interventions as thought by the community and Karatu District Council representatives

s/n	Challenge	Solution
1.	Water scarcity and lack of water infrastructure leading to inadequate water supply	· Invest in exploration and invest and extraction of underground water resources · Improve water availability through drilling of boreholes and installation water supply system · Promote sustainable water use

2.	Food scarcity, food insecurity and Malnutrition	· Provision of humanitarian food support at Village community centres · Promote use of traditional and improve crops varieties · Promotion of beekeeping practices, · Promote climate change – resilient Promote. climate change–resilient livestock practices such as Poultry and rabbit farming
3.	De forestation	· Mainstream climate change into forest management practices in all villages of Karatu District. · Promote alternative livelihoods in villages particularly targeting women and youth groups/the most vulnerable community groups. · Awareness on Participatory Forest Management · Tree planting · Law enforcement
4.	Poor health services	· Enhance capacity of public health care systems. · Improve disease surveillance and design of disease – control at health centers and village dispensaries. · Improve knowledge of climate change – related occupational health risks. · Provision Community Health Insurance
5.	Limited information on climate change, impacts and associated risks including limited knowledge and information of planning with climate change in mind	· creating awareness on climate change · Sharing local knowledge and solutions · Building strong community institutions · Strengthening climate information services · mainstreaming climate change District Development Plans
6.	Gender related issues	· Promote gender equity and equality among communities in Karatu to address norms and traditional systems which expose women to struggle mostly with domestic issues and to keep domestic matters of families going. · Promote and implement alternative income diversification activities such as beekeeping, poultry farming, local chickens' productions, Fruit tree planting, and home gardens for traditional crops · Promote awareness to encourage women and girls to participate in all stages of the projects implementations and meetings

Source: Field Visit 2021



Figure 6. Proposal development team visited one of the caves used by Hadzabe hunters

(b) Gender analysis

At the stage of full proposal development, a gender scoping was done. Its findings were analyzed and discussed during consultations with Karatu district council staff and also with other partners working in Karatu. As it is indicated at section 1.2.2 inequality related to gender, exclusion of those with disabilities and income inequality are some of the factors that contribute significantly for vulnerability of women and disabled groups to the current and future climate change impacts and even structural inequality. Such inequality predisposes women and other marginalized groups in Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities especially widows, subjects vulnerable women and girls to negative, even harmful, coping strategies, including risky behaviors such as transactional sex. The analysis on gender also indicates traditional gender roles in Karatu confer more powers to men over women, but this situation does not relieve women from burdens of house work and looking for food and water. This is mainly due to prevailing social, economic and political barriers. As a result, women constitute approximately 60 percent of rural people living in extreme poverty in Karatu District. The district is, relatively more vulnerable to climate change- induced risks, when compared to approximately only 40% percent for men. In addition, their heavy workload that combines exploitative agriculture, household and domestic works as well as earning from nonfarm activities such as intensive tasks of child-care, fetching water and food from afar distances, as well as food processing in a context where these services are either inadequate or do not exist, are multiple gender disadvantages which trigger the intergenerational transfer of poverty among women groups in the district. Therefore the proposed actions in this project should ensure early sensitization of all key decision-makers and communities to the need for and benefits of women's equal participation in activities of project components; specify targets for female and male participation at meetings and training events in order for the meeting/training to reach quorum, the target for women/men ration should be encouraged to be no less than 50/50 where possible and develop implementation plan which ensures targets for male /female participation in project activities to be at least 40% women. See annex 1 summary on project component and gender analysis

ii. Updated Consultative Process

Since the original submission in 2022, additional consultations were carried out between 2022 and 2024 to ensure that the proposal reflects the current priorities of Hadzabe, Datoga, and neighbouring communities. With the support of Karatu District Council, a total of 11 structured consultation sessions were conducted across the three target wards, bringing together 213 participants (92 women and 121 men) including village leaders, Hadzabe elders, Datoga pastoralist representatives, women's groups, youth groups, natural resource committees, health workers, extension officers, and district technical staff. A full list of stakeholders and gender-disaggregated participation is now included in the annex.

Consultation Techniques Used

Consultation approaches were adapted to fit the cultural and social dynamics of each target group.

- Hadzabe communities: FPIC-led forest-edge consultations, small-group discussions, camp-based storytelling sessions, and traditional sign-based dialogue were used to ensure respect for cultural norms.

- Datoga pastoralists: Mobile household dialogues, group discussions at grazing points, and livelihood mapping tools were used to capture changing climate and livestock dynamics.
- Women and youth: Separate focus group discussions created safe spaces to explore needs related to water access, workloads, livelihoods, sanitation, and health.
- Village Committees (VWC, VNRC, CBOs): Structured meetings used participatory rural appraisal (PRA), problem ranking, and resource-use mapping.
- District stakeholders: Technical working sessions with the District Council, water engineers, health officers, community development officers, and natural resource experts validated proposed interventions.

Updated Priorities Since 2022

Consultations held from 2022–2024 highlighted significant changes in community needs, including:

- increased water scarcity in dry seasons.
- rising human–wildlife and human–livestock pressure around woodland areas.
- growing interest in small livestock, beekeeping, and non-timber forest products for income.
- renewed requests from women for safer water points, improved cooking technology, and health insurance.
- stronger community demand for ecosystem protection due to visible degradation around hillsides and riverbeds.
- The Hadzabe community emphasises preserving natural food sources, fire management, and access to culturally important forests.

These inputs have been fully integrated into the updated project design, ensuring the proposal reflects current, locally expressed adaptation needs and adheres to FPIC principles for Indigenous Peoples.

iii. Safeguards Discussions During Consultations (CR19)

Throughout the 2022–2024 consultation rounds, safeguard considerations were presented and discussed with all stakeholder groups, including Hadzabe hunter-gatherer communities, Datoga pastoralists, women's groups, youth and traditional leaders. The consultations included explanations of the Adaptation Fund Environmental and Social Policy (ESP), community-level risks related to water access, land use, ecosystem restoration, gender inclusion, and Indigenous Peoples' rights. FPIC processes with the Hadzabe explicitly covered safeguards, including protection of natural food-gathering areas, avoidance of culturally sensitive forests, and voluntary participation in all livelihood activities. Communities affirmed their support for proposed interventions under clear conditions: (i) no activity should restrict traditional hunting/gathering zones, (ii) all assets are shared equitably, (iii) location of boreholes and restoration areas must be approved through Village Assemblies, and (iv) cultural norms must not be violated. These inputs have been integrated into the ESMP and the project design.

Willingness to Adapt New Livelihood Options (CR20)

Consultations also explored the willingness of Hadzabe hunters and gatherers to participate in new livelihood Discussions confirmed that the Hadzabe community does not wish to abandon its cultural identity but is open to diversifying income sources to cope with declining availability of wild foods, increased climate stress, and reduced access to traditional territories. Participants expressed strong interest in beekeeping, honey processing, herbal product development, nature-based tourism, and sustainable harvesting of non-timber forest products—activities that align closely with their cultural knowledge and lifestyle. For livelihood options that are less familiar (such as poultry and rabbit keeping), communities requested phased introduction, practical demonstrations, and voluntary enrollment. For Datoga pastoralists, climate shocks affecting livestock herds created openness toward complementary income sources.

Where preferences were not discussed or where uncertainty remains, the project will use continuous FPIC, iterative consultations, and pilot-based adoption to ensure that no one is pressured to change traditional practices. Sustainability will be ensured by supporting only livelihood activities selected voluntarily by Indigenous groups, maintaining traditional knowledge, and enforcing cultural safeguards through Village Assemblies and community-led monitoring.

I. Provide justification for funding requested, focusing on the full cost of adaptation

reasoning.

Like most of the rural areas in Tanzania, the economy and livelihood system of communities in Karatu district are mainly driven by sensitive sectors. Negative effects due to changing weather seasons and climate variability and change have already disrupted the economy and people's lives in Karatu. Historical degradation of ecological ecosystems and through the ongoing poor livestock and farming practices and climate induced processes adversely affect the existing social-ecological and livelihood systems in the proposed project sites in Karatu district. The current climate trend and the continued global change in the climate system accelerates these effects and calls for adaptation actions in life supporting sectors such as water, agriculture and livestock. The requested funds from Adaptation Fund is viewed to support direct implementation of concrete climate smart innovations and built resilient economy and livelihoods of the people in Baray, Endamaghan and Mang'ola wards, the activities proposed by this project will be implemented to attain project objectives including its expected outputs and outcome to enhance adaptive capacity of marginalized communities in Baray, Endamaghan and Mang'ola wards and to increase their climate resilience to the adverse effects of climate change and variability without any other addition funds apart from the resources from the AFs' resources. The capacity gap relates to financial resources available to build concrete climate action at the project sites, which will be effectively addressed with the requested funds in this proposal. However, the resources will be amplified through the adoption of Force Account Modality (FAM)

Component 1: Enhancing integrated climate change resilient livelihood diversification in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District

Baseline scenario (without AF resources): Without the AF project, rural communities in the Baray, Endamaghan, and Mang'ola wards of Karatu District will continue their traditional hunting, gathering, and blacksmithing practices, which are vulnerable to climate change impacts. Limited availability of animals, leaves, seeds, fruits and roots due to drought and unpredictable seasons has caused serious food insecurity and famine. Without AF resources, it means that no measures to improve existing livelihood productivity and transformation to climate resilient livelihoods for communities to be more climate resilient in Baray, Endamaghan and Mang'ola wards. This scenario will worsen the situation and the future. If this happened, vulnerable communities, especially women, would be pushed deeper into poverty.

With AF funding: The requested AF resources will be sufficient to achieve the expected outcome and outputs, including the adaptation objectives under this component. AF resources will therefore be used to improve existing livelihood systems and introduce transformative livelihood systems that make communities more climate-resilient and adaptive to the future effects of climate change (including increased mean annual temperatures and increased frequency and intensity of droughts).

Component 2: Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmiths) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District

Baseline scenario (Without AF resources): Without the AF Fund, no actions will be taken to implement Component 2 activities under this project, allowing present and future climate threats to continue to exacerbate existing water scarcity. Observed climate and weather extremes, such as droughts and prolonged dry periods, will continue to destroy livelihoods, particularly water supplies. In this manner, adaptation failure will be witnessed, and the detrimental effects of climate change will be irreversible in the near future. There is sufficient evidence that women in these areas are suffering the most and are now forced to walk longer distances to find water. Such evidence on water scarcity driven by climate change has instigated increased social group conflicts, such as hunters and gatherers, farmers and livestock keepers, including incidents of gender-based violence. Local communities in the project area have limited capacity to adapt to induced water scarcity due to poverty. Moreover, as a developing country, the Tanzanian Government has limited adaptive capacity and inadequate financial resources to assist.

With AF Funding: the AF funding will sufficiently facilitate to meeting the expected outputs and adaptation objective of this component,) to enhance climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District. Financial resources from the AF will enable the construction of rural, climate-resilient water supply systems adapted to current and future climate shocks in these communities, and no additional funds will be required. The empowerment of community groups, capacity building, and the adoption of the Force Account Modality and WUAs will provide sustainable supervision,

operational, implementation, and management arrangements for infrastructure to be developed to withstand the effects of current and projected climate change.

Component 3: Improving climate change resilience of forests and non-timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District

Baseline scenario without AF resources: Over the years, ecological and environmental systems in the Baray, Endamaghan, and Mang'ola wards have been degraded by both human-induced and climate change-related drivers. The original and natural ecosystems, covered by savannah thickets, were degraded over the past 5-7 decades. There is a continued trend of environmental degradation, including poor farming methods, deforestation, charcoal production, and overgrazing at the project sites. Unless concrete adaptation approaches that integrate community- and ecosystem-based solutions to tackle climate change are implemented, the trend will continue, with disastrous effects on vulnerable communities.

The AF resources scenario: AF resources will be used to implement concrete adaptation activities that enhance integrated management of environmental and forest systems, thereby sustaining climate-sensitive rural livelihood systems at the project sites. The requested financial resources will therefore be used to establish and implement forest rehabilitation and restoration activities. Beekeeping activities, including tree planting and windrow establishment, will be solely supported under this project. AF funds will also be used to support campaigns to plant fruit trees as income-generating activities, including engaging the Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in tree planting in their camps and homesteads, as well as around public institutions such as resource centres, schools, and health facilities.

Component 4: Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District.

Baseline scenario (without AF resources): Without the AF project, rural communities in Baray, Endamaghan, and Mang'olawards in Karatu District will continue to rely on traditional medicines for diseases and other ailments. Hadzabe (hunters and gatherers) have limited access to health services due to their nomadic lifestyle, which requires frequent movement in search of water and food. It is difficult to ascertain the cause of deaths without a proper diagnosis. Research shows that the leading causes of death are acute illnesses such as infectious and gastrointestinal diseases, which contribute to about 70% of all deaths. About 20% of other deaths are a result of trauma, including accidents and violence. These ailments require investigation and specialised treatment. Limited availability of animals, leaves, seeds, fruits, and roots due to drought and unpredictable seasons has caused a serious shortage of medicinal plant roots and seeds. Without AF resources, existing measures do not reach hunters and gatherers, who lack health insurance or access to emergency health services. If no measures are put in place, the vulnerable communities, especially women, will be in danger of losing their lives.

With AF funding: The requested AF resources will be sufficient to achieve the expected outcome and outputs, including the adaptation objectives under this component. AF resources will therefore be used to improve existing health systems, particularly access to health services through the provision of health insurance and emergency care. The proposed project aims to deliver transformative health services that help communities build resilience to the health impacts of climate change.

Climate Health Linkage

The investment in health under Component 4 directly supports climate adaptation, as the climate extremes described in the background—prolonged droughts, rising temperatures, reduced water availability, and seasonal shifts—are already increasing climate-sensitive health risks in the target communities. During extended dry seasons, the Hadzabe and Datoga experience dehydration, heat stress, reduced dietary diversity, food scarcity, and increased exposure to dust-related respiratory infections. Rising temperatures and stagnant water sources increase the incidence of vector-borne diseases such as malaria and dengue, while drought-induced poor sanitation increases the risk of diarrheal diseases. These climate impacts are especially pronounced for mobile and marginalised Indigenous groups living far from formal health services. By strengthening health outreach systems, improving maternal and child health surveillance, providing climate-health education, and enabling early diagnosis/treatment of climate-related diseases, the project helps ensure communities remain productive and able to adapt to climate stress. These measures are therefore not “business-as-usual” health improvements, but targeted actions that reduce climate-induced morbidity, protect vulnerable groups, and enhance overall adaptive capacity in line with AF adaptation

goals.

Health Insurance for Mobile Indigenous Communities

The support for health insurance is designed as a climate adaptation measure by ensuring that vulnerable Hadzabe, Datoga, women, children, elderly persons, and other at-risk groups can access essential climate-sensitive health services during periods of mobility driven by drought and food scarcity. The insurance does not require households to abandon their Indigenous way of life; coverage applies across multiple facilities in Karatu District and neighbouring locations, enabling mobile access when communities move in search of water, food, or safe shelter during climate extremes.

The intervention strengthens resilience by reducing climate-related health shocks, preventing catastrophic household expenditure on treatment, and ensuring continuity of care for climate-linked conditions, including malnutrition, dehydration, vector-borne diseases, and respiratory infections. The activity is voluntary, FPIC-compliant, and culturally sensitive, providing flexible financial protection without imposing lifestyle change or restricting traditional practices.

Component 5: Enhancing capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues.

Baseline scenario: without AF resources: At present Karatu district do not have adequate capacity to effectively support implementations and scale up climate adaptation. Without the AF project, it is likely that the pace to integrate adaptation issues into district development plans including and carrying out adaptation actions on ground will be slow and, in most cases, will be not possible. Without FA resources, vulnerable communities in wards of Baray, Endamaghan and Mang'ola wards in Karatu district are likely to continue with their unsustainable way of life which involves hunting, gathering and blacksmith practices which are also likely to limit their adaptive capacity in future.

With AF resources: Funds from the AF will perfectly be used to promote best practices and lessons in the course of project implementation to be effectively shared and communicated with key stake holders and decision makers in the district and beyond. This will pave a way to upscale and replicate outcomes and results in other places with similar environment. The requested AF resources are sufficient to achieve the expected outputs under this component

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project/programme.

The project's sustainability is built into its design through active stakeholder participation, strengthened institutional and technical capacity at community and district levels, and alignment with national and district policy priorities. By engaging communities in design and implementation, and by creating WUAs, cooperative societies, community groups, farmers/beekeepers/livestock/tree-planting groups, and community-based enterprises, the KARAHADA project builds the capacity of local people to sustain benefits independently of continued project funding. The proposed investment aligns with government priorities set out in the Development Vision 2050, the Third Five-Year Development Plan, the National Climate Change Response Strategy (NCCRS 2021), the Nationally Determined Contribution (NDC3.0, under review), the Karatu District Council's Strategic Plan, and the National Adaptation Plan (NAP, 2025), as well as the Karatu District Secretariat Strategic Development Strategy. This alignment, combined with implementation through existing district and village government structures, ensures adaptation plans are integrated into district plans and continue to be resourced and championed after project close.

Component-specific sustainability strategies:

Component 1 (Integrated Climate-Resilient Livelihood Diversification): Sustainability is embedded through skills transfer rather than asset dependency. Farmers will be trained through Farmer Field Schools (FFS) at all three wards, building practical, replicable knowledge of climate-resilient agricultural practices that farmers can adapt and pass on independently. Similarly, no beehives will be purchased for communities; instead, experts and workshop tools/equipment will be provided so self-selected beekeepers gain lasting knowledge of modern beehive management and honey-processing techniques. Diversified livelihood groups (farmers, beekeepers, livestock, tree-planting) will be organized into community-based enterprises and cooperative societies, enabling them to access markets, inputs, and financing independently of project support after closeout.

Component 2 (Climate-Resilient Rural Water Infrastructure): Sustainability rests on transferring full operations and maintenance (O&M) responsibility to trained, legally registered Water Users Associations (WUAs). WUA members will be trained in O&M, revenue collection, group dynamics, accounting, and financial management, enabling them to independently collect user fees to fund routine maintenance and repairs. Technical Training of Trainers (TOTs) will be conducted so that trained community members can continue to train others beyond the project lifetime, embedding technical capacity locally. Given the particular vulnerability and traditionally marginalized status of the Hadzabe and Datoga communities, WUA governance structures will include deliberate representation from these groups to ensure that the infrastructure continues to serve and be maintained by its intended beneficiaries rather than being captured by other users.

Component 3 (Climate Resilience of Forests and Non-Timber Forest Products): Sustainability is achieved by building local ownership and economic incentives rather than dependency on ongoing project support. Community members will be organized into forest and tree-planting groups with clearly defined management roles, trained in nursery management, agroforestry, and sustainable harvesting techniques, and supported to link forest and non-timber products (e.g., fruit, fodder, timber, honey, medicinal plants) to household livelihoods. By making forest conservation directly beneficial to household income, maintenance is incentivized economically and is expected to continue independently of project financing.

Component 4 (Climate Resilience of Health Systems): The Community Health Fund's sustainability is anchored in household financing complemented by government support, designed to operate independently of AF funding once premium collection and district co-financing mechanisms are established. The Fund's initial cohort of 600 individuals is designed as a self-renewing base rather than a fixed pilot: coverage will be maintained year-on-year through automatic renewal facilitated by Village Executive Officers (VEOs) and community focal points, minimizing attrition among the initial enrollees. The District Council will establish a dedicated budget line to subsidize premiums for the poorest and most vulnerable among these 600 households, formalizing this support as a recurrent government commitment rather than a project-dependent one. Ongoing community sensitization will sustain voluntary uptake and renewal, while the District Health Office will conduct annual monitoring of enrolment and renewal specifically within this 600-member group, enabling early corrective action where participation declines. Growth beyond the initial 600 is expected organically as neighboring households observe the Fund's benefits and enroll using their own premium contributions, expanding the risk pool and strengthening the Fund's long-term financial and actuarial viability without additional project investment.

Component 5 (District and Community Capacity for Climate Change Adaptation Planning and Awareness): Sustainability will be achieved by institutionalizing climate adaptation capacity within existing district and village governance structures rather than creating parallel systems. District and ward-level officials, together with community animators and village government representatives, will be trained to design, plan, and implement climate adaptation interventions using participatory tools that can be applied to future initiatives beyond this project. Village-level committees will be equipped with the knowledge and skills to continue climate risk assessment and adaptive planning independently, while integration of adaptation plans into district performance contracts and village development plans ensures institutional continuity and dedicated resourcing after project closeout.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project/programme.

Environmental and Social Management Plan (ESMP) – Management Plan

The project includes a comprehensive Environmental and Social Management Plan (ESMP) that outlines how all identified environmental and social risks will be managed during implementation. The ESMP provides a structured system for screening activities—particularly Unidentified Subprojects (USPs)—identifying risks, determining mitigation measures, and monitoring compliance with the Adaptation Fund Environmental and Social Policy (ESP) and Gender Policy. The plan assigns clear responsibilities to the Project Coordination Unit (PCU), the District Environmental and Social Officers, Village Natural Resource Committees (VNRC), Water User Committees (VWC), and NEMC for oversight, reporting, and enforcement.

The ESMP Management Plan includes: (i) risk screening and categorization procedures for all subprojects; (ii) required mitigation and enhancement measures; (iii) monitoring parameters; (iv) reporting and documentation requirements; (v) frequency and timing of monitoring; (vi) institutional roles and responsibilities; and (vii) a costed budget for implementation. The ESMP will be implemented throughout the project cycle using participatory approaches including FPIC, environmental and social audits, gender-responsive monitoring, and adaptive management to ensure that any unanticipated risks are identified and addressed promptly. The Table below presents the ESMP Management Plan

Table 11. ESMP Management Plan

ESMP Activity	Potential Risks	Mitigation Measures	Responsible entity	Monitoring Indicators	Frequency	Budget
1. Site-specific ES screening for all subprojects (boreholes, beehives, restoration sites)	Land use conflict, habitat disturbance, and cultural sensitivity	Use AF screening form; apply FPIC; avoid sensitive sites; ecological checks	NEMC, District Environmental Officer, PCU Safeguards Specialist	Screening forms completed; FPIC minutes	Before implementation	\$21,000
2. Implementation of mitigation measures	Soil disturbance, vegetation loss, waste, and safety risks	Erosion control, native species, PPE, safe construction	Contractors, VNRC, PCU	Mitigation actions completed	Continuous	\$40,000
3. Quarterly safeguards monitoring	E&S non-compliance	Field checks, VWC & VNRC reporting	DEO, DCDO, PCU	Monitoring reports filed	Quarterly	\$18,000
4. Water quality monitoring for boreholes	Contamination, health risks	Water testing (chemical & bacteriological)	District Water Engineer	Water test reports	Twice yearly	\$18,000
5. Gender Action Plan implementation	Exclusion of women/youth/PwD	Gender-responsive targeting, separate consultations	PCU Gender Specialist	Disaggregated monitoring reports	Semi-annually	\$146,000
6. Annual ESMP Audit	Systemic risks, governance issues	External auditor: recommendations implemented	PCU, NEMC	ESMP audit reports	Annually	\$15,000
7. Grievance redress mechanism (GRM)	Community conflict, complaints	Functioning GRM at district & village levels	PCU + District	GRM logs	Continuous	\$3,000
8. Training committees (VWC, VNRC)	Weak governance, maladaptation risk	Capacity building and refresher training	PCU + District	Attendance lists, training reports	Annually	\$6,000
9. Adaptive management updates	Unanticipated risks	Adjust activities; update ESMP	PCU, NEMC	Updated ESMP	As needed	\$10,000
						\$277,000

The project has been screened in accordance with the Adaptation Fund Environmental and Social Policy (ESP) and is classified as Category B, as its anticipated environmental and social impacts are site-specific, reversible, and manageable through appropriate mitigation measures.

The project will directly benefit an estimated **3,000 people**, including Hadzabe and Datoga Indigenous communities, vulnerable women, youth, elderly persons, households with disabilities, and neighbouring residents across the three wards. Indirect beneficiaries number approximately **30,000 people**, who will

benefit from improved water access, ecosystem resilience, climate-health awareness, and strengthened local governance systems.

The environmental assessment identified potential risks associated with borehole drilling (noise, waste, minor soil disturbance), small-scale construction works for community centres, vegetation disturbance during ecosystem restoration, and risks of inequitable access to livelihood assets. These risks are moderate in scale and can be effectively mitigated through site-specific screening, adherence to national technical standards, environmentally sensitive siting, use of indigenous species, and application of community-based resource bylaws.

The assessment also highlights the gender-specific and cultural context of the target population, particularly the Hadzabe and Datoga Indigenous communities, who maintain unique cultural practices tied to land, mobility, forest resources, and food systems. Women across all communities carry primary responsibilities for water collection, childcare, food processing, and household well-being, making them disproportionately vulnerable to climate-induced water scarcity, heat stress, food shortages, and health shocks. Social risks include potential exclusion of women, persons with disabilities, youth, and Indigenous households from project benefits if not intentionally addressed. These have been mitigated through Free, Prior, and Informed Consent (FPIC) processes with the Hadzabe, gender-responsive targeting, separate consultations for women and youth, and strengthened village governance structures to ensure inclusive decision-making.

The assessment further integrates the legal context governing land, water, environment, and Indigenous Peoples in Tanzania, including the Environmental Management Act (2004), the Water Supply and Sanitation Act (2019), the Village Land Act (1999), and guidelines issued by the National Environmental Management Council (NEMC) and the Ministry of Water. Compliance with these laws is embedded in the ESMP through screening procedures, contractor licensing, water quality testing, and community validation for all land-based activities.

Overall, the updated environmental and social assessment concludes that the project will generate substantial environmental and social benefits—including improved water security, strengthened ecosystem services, increased climate-resilient livelihoods, reduced health risks, and enhanced governance—while all residual risks will be managed through the Environmental and Social Management Plan (ESMP), the Indigenous Peoples Plan, gender action plan, and ongoing safeguards monitoring throughout implementation.

USP Justification and Screening

Some activities under the project require the Adaptation Fund's Unidentified Subproject (USP) modality because their exact micro-locations or technical specifications cannot be determined prior to implementation. This applies particularly to borehole drilling, beehive placement, rainwater harvesting structures, and specific ecosystem restoration sites. These locations depend on factors that can only be determined during implementation, including Free, Prior, and Informed Consent (FPIC) with Hadzabe Indigenous communities, hydrogeological surveys to identify viable groundwater sources, ecological screening to avoid sensitive habitats, and Village Assembly approvals for land-use changes. Pre-identifying these sites at the proposal stage risks selecting culturally inappropriate locations, drilling in non-productive aquifers, or establishing restoration activities in ecologically unsuitable zones, which would undermine both safeguard compliance and project effectiveness.

To ensure full alignment with the Adaptation Fund's "Guidance Document for Projects/Programmes with Unidentified Subprojects," a USP Screening Procedure has been integrated into the ESMP. The procedure includes site-specific environmental and social screening, FPIC validation, technical feasibility checks, risk categorisation, and the development of mitigation and monitoring measures prior to any field activity. No USP will be implemented until it has passed this screening and has been endorsed by District technical teams, Village Assemblies, and relevant culturally appropriate structures. This approach ensures that each micro-activity fully complies with the Adaptation Fund Environmental and Social Policy, Gender Policy, and Indigenous Peoples safeguard requirements, while allowing the project to remain flexible, culturally sensitive, and technically sound during implementation. The USP screening form is attached as Annexe 5

This budget is fully integrated into the existing project cost structure and does not increase the overall budget

Potential Environmental and Social Impacts

Direct impacts:

- Localised soil disturbance, noise, and waste generation from borehole drilling.
- Vegetation removal and soil exposure during restoration and construction of community centres.
- Temporary safety risks during construction activities.
- Potential inequity in the distribution of livelihood assets.

Indirect impacts:

- Increased pressure on water points if governance is weak.
- Shifts in women's workload associated with new livelihood activities.
- Potential exclusion of Indigenous households if culturally appropriate engagement is not maintained.

Cumulative impacts:

- Improved groundwater recharge across restored landscapes.
- Long-term biodiversity recovery across the 600 ha of woodland and hills.
- Increased social cohesion through strengthened committees and inclusive governance.

Transboundary impacts

- No transboundary environmental or social impacts are anticipated. The project operates fully within Karatu District and does not affect international water bodies or shared ecosystems.

Table 6 below uses the official AF ESP screening template without modification.

- A checkmark (✓) is placed ONLY in the "No further assessment required" column where the risk is clearly negligible or fully addressed by design.
- Where further assessments or mitigation are needed, the column is left blank, and the "Potential impacts and risks" column includes a concise justification (1–2 sentences) and a brief description of mitigation measures.

Table 12: Summary of Identified Environmental, Social and Safety Issues.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
<i>Compliance with the Law</i>		Risk level: Low. All project activities must comply with national environmental, water, land and labor legislation, including the Environmental Management Act (2004), the Water Supply and Sanitation Act (2019), and the Village Land Act (1999). Non-compliance could expose subprojects to legal challenge or require rework. Mitigation: Every subproject (boreholes, beehives, restoration sites, community centers) is screened against the AF Environmental and Social Policy and the above national laws before any field activity begins, using the standard AF screening form. Contractors must hold valid national licenses and permits prior to mobilization. The District Environmental and Social Officer and PCU Safeguards Specialist verify legal compliance at screening, and NEMC provides independent oversight. Compliance status is captured in the quarterly safeguards monitoring reports (Table 11, Activity 3) and reviewed in the Annual ESMP Audit (Activity 6),

		so any gap is caught and corrected within one quarter.
<i>Access and Equity</i>		Risk level: Low. Because water points, beehives, and restoration-linked livelihood assets are shared or limited-access resources, there is a risk that some households — particularly poorer or more remote ones — end up with disproportionately less access or benefit than others. Mitigation: Beneficiary selection uses transparent, criteria-based targeting agreed with Village Assemblies, and access rules for shared infrastructure (e.g. borehole scheduling, beehive siting) are set out in community resource-use bylaws adopted before commissioning. Village Water Committees (VWC) and Village Natural Resource Committees (VNRC) are responsible for day-to-day equitable management and for flagging emerging access problems. Where a household or group feels excluded, the project's grievance redress mechanism (Table 11, Activity 7) provides a channel to raise and resolve the complaint at village or district level, with GRM logs reviewed continuously by the PCU and District team.
<i>Marginalized and Vulnerable Groups</i>		Risk level: Medium. Hadzabe and Datoga Indigenous communities follow distinct governance, land-use, and consultation norms that differ from the mainstream village-level process used for other communities. If engagement follows only the standard process, these groups risk being under-consulted or effectively excluded from decision-making and benefit-sharing. Mitigation: Free, Prior and Informed Consent (FPIC) is applied specifically for Hadzabe and Datoga communities before any activity affecting their land, mobility, or resource use proceeds, following the process set out in the project's Indigenous Peoples Plan. Consultations are held separately from general village meetings, using local-language facilitators and culturally appropriate structures (elders, traditional leaders) rather than only formal committees. The PCU Safeguards Specialist and District Community Development Officer are responsible for ensuring these consultations occur and are documented (FPIC minutes), with compliance checked during quarterly safeguards monitoring and the Annual ESMP Audit.
<i>Human Rights</i>		Risk level: Low. No rights violations are anticipated given the community-driven, consent-based design of the project, but ongoing vigilance is needed throughout implementation — particularly around free participation, non-discrimination, and safe

		raising of concerns. Mitigation: A functioning grievance redress mechanism (GRM) operates continuously at both district and village level (Table 11, Activity 7), giving community members a safe channel to report any rights concern, including retaliation or coercion. All project activities are designed and screened against the AF Environmental and Social Policy, which embeds non-discrimination and participation requirements into every subproject. The PCU monitors GRM logs and safeguards reports continuously, and any rights-related complaint is escalated to NEMC and, where relevant, District authorities for resolution.
<i>Gender Equality and Women's Empowerment</i>		Risk level: Low. Because women carry the primary responsibility for water collection, childcare, and food processing, they are also the group most likely to be under-represented in decisions about new infrastructure and livelihood assets, and could see unequal ownership or control over the benefits those assets generate (e.g. beehives, restored land) unless targeting is deliberate. Mitigation: The project's Gender Action Plan (GAP) and GESI approach set explicit targets for women's participation in decision-making bodies and their share of livelihood assets. Separate consultations for women (and youth) are held alongside general community meetings so that preferences and constraints specific to women are captured without being diluted in mixed forums. The PCU Gender Specialist leads this work and reports through sex-disaggregated monitoring data collected semi-annually (Table 11, Activity 5), allowing any emerging gender gap in asset ownership to be identified and corrected before it becomes entrenched.
<i>Core Labour Rights</i>		Risk level: Low. Most project labour is voluntary community contribution (e.g. restoration planting, committee work), which carries low inherent risk, but construction-related activities (borehole drilling, community centres) will involve contracted labour, where risks of unsafe conditions, underpayment, or non-compliance with labour standards could arise if not actively managed. Mitigation: All contractors engaged for construction or drilling works are required by contract to comply with national labour law, including prohibitions on child and forced labour and requirements for fair pay and safe working conditions. The PCU and District authorities monitor contractor compliance as part of routine site supervision and the quarterly safeguards monitoring visits (Table 11, Activity 3), with any breach grounds for corrective action or contract review.

<i>Indigenous Peoples</i>	(√)	Risk level: Medium. Hadzabe and Datoga communities have distinct cultural practices tied to land, mobility, forest resources, and food systems. Standard engagement approaches designed for settled agricultural communities may not reach them effectively or may inadvertently overlook practices that need specific protection, risking inadvertent exclusion or harm to cultural practices. Mitigation: Engagement with Hadzabe and Datoga communities follows the project's dedicated Indigenous Peoples Plan (IPP), anchored in FPIC before any activity affecting their land or resources proceeds. Local-language facilitators are used, and elders and recognized cultural leaders are directly involved in consultation and decision-making, rather than relying solely on formal village committee structures that may not represent these communities' governance norms. The PCU Safeguards Specialist is responsible for IPP implementation, with FPIC minutes and attendance records reviewed during quarterly safeguards monitoring and the Annual ESMP Audit to confirm engagement quality is maintained throughout the project cycle.
<i>Involuntary Resettlement</i>	(√)	No risk identified. All subproject sites are located on communal or village land, confirmed through Village Assembly approval and FPIC prior to any works, and the project design does not require acquisition of private land or physical or economic displacement of any household. No further assessment or mitigation is required for this principle.
<i>Protection of Natural Habitats</i>		Risk level: Low. Ecosystem restoration and, to a lesser extent, community-center construction could affect sensitive woodland or hillside habitats within the 600 ha restoration landscape if sites are not carefully selected, potentially undermining the very ecological gains the project aims to deliver. Mitigation: Every restoration or construction site undergoes ecological screening before selection, applying Assisted Natural Regeneration (ANR) safeguard criteria to identify and avoid ecologically sensitive or critical habitat areas. This screening is part of the standard site-specific ES screening process (Table 11, Activity 1), carried out by the District Environmental Officer and PCU Safeguards Specialist before implementation begins, with completed screening forms retained as the compliance record.
<i>Conservation of Biological Diversity</i>		Risk level: Medium. Restoration activities risk introducing non-native or invasive plant species if species selection is not tightly controlled, which could degrade rather than restore local

		biodiversity and undermine the project's ecological objectives. Mitigation: The project commits to exclusive use of indigenous/native species in all restoration and revegetation activities, verified through biodiversity screening at the site-selection stage. District forestry and environment officers monitor species selection and planting on an ongoing basis as part of routine field supervision, with findings fed into the quarterly safeguards monitoring reports so that any non-compliant planting is identified and corrected promptly.
<i>Climate Change</i>		Risk level: Low. Climate change is expected to compound existing health and water-security risks for vulnerable groups — for example through heat stress, water scarcity, and shifting disease patterns — which the project needs to anticipate rather than treat as a static baseline condition. Mitigation: Water infrastructure is designed to be climate-resilient (e.g. borehole siting informed by hydrogeological surveys rather than fixed assumptions about water availability), and climate-health awareness training is delivered to communities alongside hygiene training. The project coordinates directly with the district health system, sharing climate-health information so that local health services can anticipate and respond to climate-linked health risks. This coordination and training is tracked through the ESMP's ongoing monitoring and reporting activities, with adaptive management (Table 11, Activity 9) allowing the approach to be adjusted as climate risks evolve.
<i>Pollution Prevention and Resource Efficiency</i>		Risk level: Medium. Borehole drilling and construction of community centers will generate waste (drill cuttings, construction debris) and carry a risk of localized pollution (fuel/oil spills, uncontrolled dust) if site management is not properly supervised. Mitigation: Contractors are required to implement a site-specific Occupational Health & Safety and waste management plan that covers the safe handling and disposal of drilling and construction waste, as well as dust and erosion control measures during works. Compliance is verified by the District Environmental and Social Officer during site supervision and captured in the quarterly safeguards monitoring visits (Table 11, Activity 3); non-compliant contractors are required to take corrective action before further works proceed.
<i>Public Health</i>		Risk level: Low. New water points need to be safe to use — both in terms of water quality and surrounding sanitation — or they risk becoming a source of illness rather than the intended

		health benefit. Mitigation: All boreholes undergo routine chemical and bacteriological water quality testing twice yearly, carried out by the District Water Engineer (Table 11, Activity 4), with results informing any need for treatment or remediation before points are certified safe for use. Communities receive hygiene and climate-health training to complement infrastructure investment with safe-use practices, reducing the risk of water-related illness even where infrastructure alone cannot fully eliminate it.
<i>Physical and Cultural Heritage</i>		Risk level: Low. No known tangible heritage sites (e.g. archaeological or historical structures) are present in the project area, but intangible Hadzabe and Datoga cultural heritage — practices, knowledge, and sites of cultural significance tied to land and mobility — could be affected if activities are sited without regard to their significance. Mitigation: FPIC processes with Hadzabe and Datoga communities specifically screen proposed sites for cultural significance before approval, ensuring intangible heritage is identified and protected rather than only physical structures. Should any unexpected heritage feature be encountered during earthworks, a chance-find procedure requires works to stop and the PCU Safeguards Specialist and relevant cultural authorities to be consulted before resuming. Compliance with this procedure is checked as part of quarterly safeguards monitoring.
<i>Lands and Soil Conservation</i>		Risk level: Medium. Borehole drilling and construction of community centers will cause minor, localized soil disturbance, which if left unmanaged could contribute to erosion, particularly on the hillside sections of the 600-ha restoration landscape. Mitigation: Erosion control measures, including mulching, use of deep-rooted grass for slope stabilization, and contour planting, are applied at all disturbed sites, and works are scheduled during the dry season to minimize erosion risk from rainfall run-off. Local Government Authority (LGA) engineers supervise construction and drilling works to confirm these measures are correctly implemented, with compliance verified through the quarterly safeguards monitoring visits (Table 11, Activity 3) and remediation required for any site found non-compliant.

A. Describe the arrangements for project/programme implementation.

a) The National Implementing Entity (NIE):

The project will be implemented by the National Environment Management Council (NEMC). NEMC has significant experience in implementing projects and programs of this nature, with dedicated groups/units for climate change adaptation and execution of the NIE mandate related to the AF operations in the United Republic of Tanzania. The following are the implementation services that will be provided by NEMC under this project:

- Overall coordination and management of NIE functions and responsibilities
- Facilitate interactions with the AF secretariat and other related stakeholders at global scales
- Oversight of project implementations and reporting on budget performance
- Quality assurance and accountability for output and delivery during project development, implementation and the completion phase;
- Receipt, management and disbursement of the AF's funds in accordance with the financial standards of the AF;
- Oversight and quality assurance of evaluation processes for project performance and ensuring that lessons learned/ best practices are incorporated to improve future projects in the United Republic of Tanzania; and
- General administration and support costs, including legal services, procurement and supply management, IT and human resources management

b) The Executing Entities: Karatu District Council, Tanzania Environmental Protection Organisation (TAEPO) and Climate Action Network (CAN) Tanzania

Karatu District Council, TAEPO and CAN Tanzania will be the overall executing entities of the project whereby; **The Karatu District Council** will serve as the **lead local government authority**, coordinating project activities at the district and ward levels while integrating them into development plans and sector strategies. The Council will promote community engagement, facilitate land-use approvals, and ensure alignment with national and regional climate and resource policies. Through its relevant departments, it will provide technical oversight, support compliance with safeguards, and promote the sustainability of infrastructure and services beyond the project period.

CAN Tanzania will serve as the **technical coordination and policy mainstreaming partner**, responsible for project design support, stakeholder engagement, strengthening climate governance, and alignment with national adaptation frameworks (NAPs, NCCRS, TDV 2050, FYDP III and NDCs). CAN Tanzania will lead monitoring, evaluation, learning, and knowledge management, support the development of off-take agreements and market linkages for livelihood activities and facilitate policy dialogue to scale successful models. CAN Tanzania will also ensure the integration of gender and social inclusion and contribute to safeguarding compliance and reporting to the Implementing Entity.

TAEPO will serve as executing entity for **community-level implementation of ecosystem-based adaptation and livelihood interventions**, with a focus on natural resource management, biodiversity conservation, and climate-resilient livelihoods. The organisation will mobilise communities, facilitate training and capacity building, support the establishment of producer groups and community institutions, and implement restoration and conservation activities. TAEPO will also contribute to environmental and social safeguards monitoring, knowledge documentation, and community feedback mechanisms

All these will be realized through the services of a project management unit (PMU), which will be staffed with a project coordinator, an assistant project coordinator, a project driver and a project accountant are referred here as project personnel and will be sourced from the existing staff within Karatu district council except the project coordinator will be sourced within the existing staff within NEMC. Strong participation of other District staff will be at the project implementation level, as activities involve cross-sectoral coordination.

The project steering committee will be formed, with the PMU serving as the committee's secretariat, supported by the District Executive Director (DED) and the Executive Director of HKC. The members of the project steering committee will be the DED of Karatu District Council, the District Planning Officer, one representative from each of the following sector ministries: the ministry responsible for Local governments, the ministry responsible for livestock, the ministry responsible for agriculture, the ministry responsible for environment and climate change, and the ministry responsible for forestry and natural resources. Other members will be an officer from the National Environmental Management Council (NEMC), one member from TAEPO, one from CAN Tanzania, one from the Tanzania Meteorological Agency, and one from RUWASA Karatu. Heads of Departments from Karatu District Council, CAN Tanzania and TAEPO will be invitees. The following table lists the proposed project partners.

Table 13. Summary of analysis of possible project partners.

STAKEHOLDERS	RESPONSIBILITIES
PRIME MINISTER'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT(PMORALG)	PMO-RALG is mandated to administer and manage Regional Secretariats and Local Government Authorities. PMO- RALG will be responsible for the coordination of Regional and District Climate Change Interventions and will be part of the Steering Committee
VICE PRESIDENT'S OFFICE (VPO)	The Vice President's Office and the NDA to the Adaptation Fund and is the Focal Point to the UNFCCC. The VPO is also responsible for coordination and overseer of all climate change activities in Tanzania. Thus, this project will work with the VPO to ensure its implementation contributes to the objectives articulated in the climate change strategy, NDCs, NAP and NAPA documents. VPO will chair the Steering Committee
MINISTRY OF FINANCE	MoF will be responsible for ensuring that all project components align with national development plans, visions, and strategies. MoF will be part of the Project Steering Committee.
MINISTRY OF WATER	MW is responsible for water supply, water resources management, and irrigation. This project will utilise.MW will be part of the Project Steering Committee
MINISTRY OF AGRICULTURE (MoA)	MoA is responsible for agricultural development issues in Karatu. All agricultural-related activities will be implemented under the MoA's guidance. MoA will be part of the Project Steering Committee
MINISTRY OF LIVESTOCK AND FISHERIES DEVELOPMENT (MOLF)	This project will leverage MoLF's experience and technical capacity to implement livestock activities. MoLF will be part of the Project Steering Committee
ARUSHA REGIONAL ADMINISTRATION SECRETARIAT (RAS) OFFICE	The Arusha Regional Administration Secretariat (RAS) office, which is widely involved in project design, will be involved in implementation and provide policy guidance to the project management unit. RAS will be part of the Project Steering Committee, and various reports during the design and implementation will be communicated to the RAS.
TANZANIA METEOROLOGICAL AGENCY (TMA)	Responsible for weather and climate-related information, and will be a key stakeholder during the implementation and post-implementation stages of the project. TMA will be part of the Project Steering Committee
TANZANIA FOREST SERVICE AGENCY (TFS)	The Tanzania Forest Service is a strategic stakeholder in tree planting, afforestation, and ecological rehabilitation and restoration activities. TFS will be part of the Steering Committee.
RURAL WATER SUPPLY AGENCY-RUWASA (Karatu Office)	This is the National Authority responsible for water supply in rural areas; RUWASA is the government's technical arm for the management and development of water supply infrastructure in rural areas. RUWASA in KARATU will be responsible for implementing activities related to underground water drilling and supply systems.
TAEPO	TAEPO is a key stakeholder for providing training and support for Karatu District Council. They have experience in building community institutions amongst Northern highlands tribes. They have worked in the Karatu district on other projects. TAEPO will be part of the steering committee
CAN Tanzania	CAN Tanzania will serve as the key technical coordination and policy integration partner for the project. It will focus on project design, stakeholder engagement, and strengthening climate governance aligned with national frameworks (NAPs, NCCRS, TDV 2050, FYDP III, NDCs). Our responsibilities include monitoring, evaluation, and knowledge management, as well as facilitating market linkages for

STAKEHOLDERS	RESPONSIBILITIES
	livelihood activities. We will promote policy dialogue to scale successful models while ensuring gender and social inclusion and contributing to safeguard compliance and reporting to the Implementing Entity.
LAKE EYASI OPEN SCHOOL AND HELP OTHER PEOPLE TO EXCEL TANZANIA FOUNDATION	This school offers integrated Post-primary Education (IPPE) through Open and distance learning, which will be a key stakeholder in the provision of training to communities. It will be used for tailor made courses as agreed by communities and stakeholders. The school has learning facilities and accommodation and provides health services to communities within Lake Eyasi and beyond.
LOCAL NGOS, SOCIAL GROUPS AND CBOs	Non-governmental organizations, community-based organization are very few in number, and most of them are not active. However, few of them such as World Vision and Convoy of Hope operates in the project area. Informal and community-based organisations, such as farmers, livestock and other social organisations, exist in Karatu. These are key partners for developing and operate to the project. Additionally, are key beneficiaries of results and outcomes of the project.
PRIVATE SECTOR, PARASTATAL, AND GOVERNMENT AGENCIES.	This project will aim to maximise linkages among beekeepers, farmers, livestock keepers, jewellers, and blacksmiths to markets, financial institutions, and buyers of agricultural and non-agricultural products.
DIRECT BENEFICIARIES	Direct beneficiaries of the KARAHADA project are vulnerable and marginalised communities in Karatu District, particularly the Hadzabe (hunters and gatherers) and Datoga (blacksmiths). These are key stakeholders and will be actively involved throughout the planning, implementation, and monitoring of the KARAHADA project.

c) Project Management Unit:

The project Management unit will be established and hosted at the headquarters of the Karatu District Council, responsible for the day-to-day management of project activities and facilitating stakeholder engagement. The PMU will comprise a full-time Project Coordinator (PC), a full-time M&E officer, a full-time Financial and Accounting (FA) officer, and a full-time driver and personal secretary (PS). The project coordinator's main responsibility is to ensure the project delivers the results specified in the project document to the required quality standard and within the specified time and cost constraints. The annual work plan is prepared by the project coordinator, presented to the District Executive Director (DED) and HKC management, and approved by the Project Steering Committee. However, NEMC will be on the steering committee to ensure its quality assurance role and to be part of the final approval. The project coordinator is also responsible for managing and monitoring the project risks initially identified, submitting new risks to the Project Steering Committee for consideration and decision on possible actions, if required, and updating the status of these risks by maintaining the project risk log in accordance with AFs guidelines. The key functions of the PC will be the following:

Oversee and manage project implementation, monitor work progress, and ensure delivery of outputs and within the specified constraints of time and cost as outlined in the project document.

- Report to Karatu district / HKC and PSC regarding project progress
- Develop and facilitate implementation of a comprehensive monitoring and reporting system
- Ensure timely preparation of detailed annual work plans and budgets for approval by the PSC
- Assist in the identification and selection of consultants and other experts as required;
- Supervise, coordinate and facilitate the work of the administrative/ technical team (consisting of the assistant coordinator, finance/ administration staff and consultants)
- Provide input to management and technical reports, and other documents as described in the M & E plan for the overall project. Reports should include assessments of progress in implementing activities, including reasons for any delays and recommendations for necessary improvements.

- Inform the Karatu district Authorities/ HKC and PSC without delay of any issue or risk which might jeopardise the success of the project.
- Liaise and coordinate with NEMC on a regular basis

Because most activities are fieldwork and will require extensive services and training in FFS and FFFS, purchasing a single field vehicle is necessary to ensure the PMU has the capacity to monitor and supervise project activities.

d) Institutional Arrangement

To ensure the project's gendered dimensions are adequately integrated across all components, the implementation arrangements now include a **Gender and Social Inclusion Specialist**. This specialist will support the Project Coordination Unit (PCU), District Facilitation Teams, and community structures to mainstream gender throughout project planning, implementation, monitoring, and reporting. Specifically, the specialist will oversee the implementation of the Gender Action Plan, support gender-responsive targeting of beneficiaries, facilitate separate consultations with women, youth, and vulnerable groups, ensure compliance with the Adaptation Fund Gender Policy, strengthen the collection and reporting of gender- and age-disaggregated data, and provide capacity-building on gender-responsive adaptation. This role ensures that gender considerations are systematically embedded in decision-making processes at district and community levels.

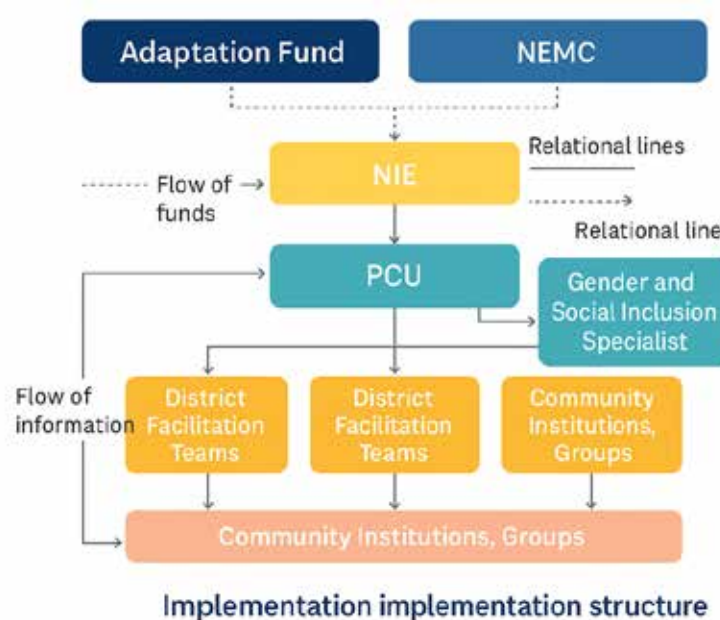


Figure 7. The management arrangements for the project are summarized in the chart below

B. Describe the measures for financial and project/programme risk management.

a) Financial and project risk management

Describe the measures for financial and project risk management

The project anticipates various risks during the implementation phase, as summarized in Table 9. Strict precautionary measures for identified financial and project risks have been developed to mitigate them before they occur. The risk categories are related to delayed time for project implementations and conflict management are pertinent risks of the proposed project. These are rated low, but those risks related to limited stakeholders' involvement and natural and environmental hazards are rated low to medium.

Table 14. Risks and management measures.

S/N	Identified Risks	Level of Risk -Low - L -Medium - M - High-H	Mitigation Measures
1	Competing interests between different stakeholders regarding accessing and use of project benefits and related resources	L	Establish multi-stakeholders' forum to discuss and deliberate on accessing and use of project benefits and related resources
2	Local communities with limited participation and willingness to promote project initiatives	L	Increase awareness campaign about the importance of communities at village community levels to actively participate and own the project, working with available set up of village government and community structures, active involvement of community organizations in project implementation
3	High expectations for quick investments on the ground and resources beyond the available project resources	M	Continue with awareness raising campaign to foster more understanding about the project objectives and activities under the components and implementation arrangements
4	Project financial management	L	The project will have clear separation of roles and strengthen accountability and auditing
5	Delay in project implementation due to government bureaucracy, long and inefficient procurement processes	L	Detailed Implementation Plans (DIPs) and Project Annual Plans (PAPs) will be developed and approved by both the Project Steering Committee (PSC) and National Implementing Entity (NIE). The project monitoring and evaluation plan will also be developed and implemented effectively. Developing a procurement plan and using flexible procedures under HKC and negotiating with the Government at Karatu district to get special treatment that can fast-track implementation
6	Limited Stakeholders Involvement	L	All stakeholders were actively involved in all phases of the project, from the early stages of design, and will continue to be involved during implementation, monitoring, and evaluation. Involvement of key stakeholders at the community level and inclusion of marginalised communities and groups, such as women, local leaders, and community beneficiaries, Karatu DC and other public service organisations, will facilitate mitigating any risks related to stakeholders' involvement.
7	Low adoption rate of proposed innovations and adaptation technologies by communities	M	Promotion and demonstration of new technologies and practices

8	Financial Risk	L	There are clear financial management structures in the district that will be followed. These structures follow national laws and regulations governing public financial expenditures and transactions. Therefore, this project will adhere to all Generally Accepted Accounting Principles (GAAP) regarding control, transparency, and documentation, and will have procedures and the necessary infrastructure in place for an appropriate audit system by the Office of the Auditor General or any other internationally accepted auditing firm. Approved regulations, procedures and guidelines on costs for services & goods of the United Republic of Tanzania including the Adaptation Fund Standards, will be strictly followed
9	Conflict Management	L	Although no conflict is expected during the implementation of this project, the NIE management and conflict resolution structure and mechanism, along with their oversight and support roles, will be followed and respected by management to address any unforeseen conflicts that may arise during the project phases. Additionally, the PSC and the PMU will put a strong early warning structure in place to foresee and manage both financial and management risks before they happen

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

Environmental and social impacts and risks have been identified for the proposed project (Section II K). Following this, a broader view of Environmental and Social Management Plan (ESMP) for the proposed project will be developed in collaboration with relevant stakeholders and authorities including NEMC. Further detailed ESMP for anticipated intervention will be formulated during the inception workshop.

Table 15. Anticipated Environmental and Social impacts and risks management

Environmental and social principle	Identified potential impacts and risks	Level (H, M, L)	Mitigation measures
Compliance with the law	Some activities under component 1 and 2 which are currently not fully itemized/ designed there might be a risk that such activities will not comply with certain laws	L	Environmental and Social Management Plan (ESMP) will be prepared and will be adhered to monitor implementations of on the ground concrete activities such as water supply and micro- irrigation

Access and equity	Given that the beneficiaries are rural people and marginalized poor families who are not often integrated in the village politics and decision-making processes, there could be a risk of insufficient access of the project resources by these people	L	Clear and transparent criteria have been put in place including selection of participants the trainingsad workshop. Measures have been put in place to enable this project to closely monitor all targeted beneficiaries to assure equal access of men, women, youth and the most vulnerable groups. Indicators in this regard will be included in the monitoring and evaluation plan
marginalised and Vulnerable Groups	It is probable that project activities may exclude marginalized/and vulnerable groups at various project sites or may have insufficient access to project resources and total involvement to execute project activities during implementations, thus preventing them from accessing benefits – both in terms of resources and trainings	M	The prepared ESMP will be strongly followed and monitored throughout implementation to ensure that all marginalised and vulnerable groups have adequate access to and benefit from the project interventions. In addition, the project design has ensured that benefits accruing from the project interventions – including technology transfer and awareness-raising activities–reach marginalised and vulnerable groups in the rural villages. The design of this project ensures that all components enhance the adaptive capacity of marginalised and vulnerable groups, including
Human rights	Project objectives promote basic human rights for equitable access to service and safe drinking water, access to food and quality and health environment	N/A	The proposed project respect and adhere to all relevant conventions on human rights, national and local laws in relation to human rights
Gender equity and women's empowerment	It is likely that women will be inadequately represented during the implementation of this project, thus making the project not benefiting men and women equally	H	This project has put measures to include 40% ratio for gender consideration during implementation of all project activities under the four components. Fair and equitable selection of beneficiaries will be done and a list of all beneficiaries to each project activities will be maintained and monitored by the PMU and NIE on quarterly basis

Core labor rights	There is a possibility that communities/ beneficiaries who will be involved to implement activities using force account modality components 1, 2 and 3, to be exposed to the risk of minor and unforeseen accidents	L	The PMU will ensure compliance with the National and international labor laws and standards required relevant protection gears will be adequately provided
Indigenous peoples	According to Tanzanian laws, there are no indigenous people identified in the proposed project sites	N/A	ESMP will be monitored to ensure equitable access to project benefits and resources by local people and to the greatest extent, communities at grass- root and relevant marginalized community groups are included in community consultation and during participatory planning activities
Involuntary resettlement	No identified risk	N/A	The project design does not include voluntary or any involuntary resettlement
Protection of natural habitats	There is a low risk that the interventions of concrete adaptation actions such as boreholes, rural water supply network, water tanks and micro-irrigation systems could result in the destruction of small areas of natural habitat.	L	ESMP has been prepared to monitor executions of such interventions. Activity-based resettlement will be conducted during implementation phase
Conservation of Biological Diversity	Execution of concrete adaptation actions under components 1, 2, and 3 may have negative impacts on biodiversity.	L	ESMP has been prepared to guide and monitor executions of such interventions. Activity based Mitigation measures has also been developed under the ESMP to be followed during the implementations
Climate change	No identified risk	N/A	None of the project activities will significantly enhance emissions of greenhouse gases

It should be clearly understood that, this project is designed in consistence with Environmental and Social Policy of the Adaptation Fund. However, the proposed activities will be reassessed and monitored in accordance with the ESMP at each stage to identify and manage social and environmental risks, ensuring that adverse impacts are avoided where possible and, where avoidance is not possible, minimised, mitigated, and managed. Although the AF's Environmental and Social Policy categorises a project as A, B, or C, initial discussions indicate that this project is unlikely to pose significant adverse social or environmental impacts. The already identified social and environmental risks are expected to be localised and minimal as most of the proposed interventions are largely considered "green". Thus, this project is classified as under Category B in the classification of the AF's Environmental and Social Policy.

a) Grievance mechanism

Grievance mechanisms are proven tools in helping institutions minimize harm to communities and ecosystems by protecting the existing rights, obligations and standards. The proposed project has included a mechanism to manage conflicts/grievances. The Project will utilize the existing grievance mechanism in the United Republic of

Tanzania to allow affected to raise concerns that the Project is not complying with its social or environmental policies or commitments. It will be the responsibility of the Project Coordinator, PMU, and Karatu District Council/HKC to ensure that all relevant stakeholders are adequately informed about the grievance mechanism.

The United Republic of Tanzania has established a grievance mechanism through the Employment and Labour Relations Act, 2004 and the Environmental Management Act, 2004, through the Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) for all climate change-related projects. Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulation (2005) inform and guide all Actors and persons affected by any projects on bringing forward and responding to stakeholder concerns.

In this regard, the Project Manager/executing partners (in this project the PMU at Karatu District Council Headquarters) are usually the first point of contact for any project-related complaints from stakeholders. The Project Manager and project team should respond promptly and appropriately to a complaint to avoid escalation to the Higher Authorities for Stakeholder Safeguard-related Response.

The Project Coordinator can direct the complainants to write a letter explaining through relevant organs established from the village levels. The concerns can be submitted to the District Executive Director's Office for Stakeholder Safeguard-related Response if the issues cannot be resolved at the project level. The PC should advise complainants to provide complete information, so that the DED's Office can properly assess and address the complaint. If the DED's Office for Stakeholder Safeguard-related Response finds that the complaint is eligible, s/he forms a team composed of internal experts to investigate the case and propose options for the complainant to consider.

Recognizing that many community members particularly Hadzabe and Datoga members, women, the elderly and persons with low literacy may be unable to submit a written letter, the project does not rely on written complaints alone. It will operate a multi-channel, culturally appropriate Grievance Redress Mechanism (GRM) so that no person is excluded by literacy, language, distance, cost or disability. A grievance may be lodged, in Kiswahili or the relevant local language, through any of the following accessible channels: (i) orally and in person to the Village Executive Officer (VEO), the designated village GRM focal point, or any member of the Village Council, who is obliged to record the grievance on the complainant's behalf using a standard grievance log form; (ii) through trusted intermediaries such as traditional Hadzabe and Datoga leaders, Village Natural Resource Committee members, or women's, youth and persons-with-disability group representatives, who serve as recognised entry points for vulnerable and non-literate community members; (iii) by telephone call or SMS to a publicly displayed project/GRM focal-person number; (iv) by depositing a note or token in complaint/suggestion boxes placed at village government offices, water points and community resource centres; and (v) anonymously, where the complainant prefers not to be identified.

For any person who cannot read or write, the VEO or village GRM focal point must receive the grievance verbally, transcribe it accurately, read it back to the complainant for confirmation, and assist with its onward transmission at no cost to the complainant. Every grievance, however received, will be entered in the GRM register and acknowledged within five working days. It will be first addressed at the village level by the Village GRM Committee; unresolved, sensitive, or safeguard-related cases will be escalated to the Ward and then to the District Executive Director's Office, with the Project Coordination Unit and NEMC kept informed throughout. The mechanism will guarantee confidentiality, accept anonymous and third-party complaints, apply a target resolution time of 30 days, and is monitored under the project's M&E framework, with grievances disaggregated by sex and group. At all times, the complainant retains the right to pursue the formal national channels under the Environmental Management Act, 2004. Awareness of all available channels will be disseminated at project launch and reinforced through community meetings, posted notices, and the Gender and Social Inclusion Specialist.

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan, in compliance with the ESP and the Gender Policy of the Adaptation Fund.

The project will comply with formal guidelines, protocols and toolkits for quality assurance issued by the AF and NEMC. NEMC will develop a supervision plan during the projects inception phase which will be distributed and presented to all stakeholders during the inception workshop. The emphasis of the supervision plan will be on outcome monitoring, learning, sustainability, and financial management. Project risks and assumptions will be regularly monitored by NEMC. Risk assessments and rating will be an integral part of the project implementation

Review (PIR). The quality of the projects M& E will also be reviewed and rated as part of the PIR. Appropriate financial parameters will be monitored semi- annually to ensure the cost-effective use of financial resources.

An independent final evaluation will take place three months prior to the project's end date, in accordance with NEMC's available guidance as the NIE. The final evaluation will focus on the delivery of the project's results as initially planned- and as corrected after the mid-term evaluation, if any such correction took place. The final evaluation will assess the impact and sustainability of results, including their contribution to capacity development and the achievement of adaptation benefits. Both expected and unexpected impacts will be investigated to inform the situation before and after project implementation.

An annual project progress review (PPR) will be undertaken and its results will be used for improving planned activities for the next financial year and phase. PPR will be prepared to monitor progress made since the project's start and in particular for the previous reporting period. The annual reviews will cover performance, outcome and output of the activities. Generally, the PPR will include but is not limited to reporting on the following

- Progress on the projects' objectives and outcomes – each with indicators, baseline date and end -of project targets (cumulative);
- Project outputs delivered per project outcome (annual)
- Lessons learned/good practice
- Annual work plan and expenditure reports; and
- Project risks and adaptive management

Quantitative and qualitative approaches will be used for quantification and qualification of information gathered. A solid monitoring and evaluation system will be put in place and will be based on the indicators and means of verification defined in the results framework. The monitoring and evaluation system will be linked to the results framework, annual work plans, and budgets. In addition, the project will commission an audit (to be certified auditor) of project accounts to ensure compliance with the AF and the government rules and procedures.

An independent Mid-Term Review (MTR) will be conducted in Year 2 (July 2028) to assess progress towards project outputs and outcomes, implementation effectiveness, fiduciary performance, environmental and social safeguards compliance, gender responsiveness, and lessons learned. Recommendations from the review will be incorporated into project implementation through adaptive management measures. Resources to support the MTR have been included in the project management, monitoring, and evaluation budgets.

Table 16. Project monitoring and evaluation work plan and budget

Activity	Responsibility	Budget in US \$	Notes												
			2027				2028				2029				
			Quarters				Quarters				Quarters				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Inception and annual workshops	Project Manager M& E officer/ project management unit (PMU)	80,00													Will be done soon after receiving funds
Initial studies to improve baseline, gender analyses, environmental and social impact assessment	National consultant, Project Coordinator and M & E officer	20,000													Will be done at the beginning of the project implementation
Gender Monitoring	Gender specialist	6,000													
Monitoring project outputs by project management team and reporting	Project manager and monitoring and evaluation officer	18,000													Will be done quarterly and the need basis
Visits to field sites for joint review of status and project progress and reporting	Project team	20,000													Will be done on need basis
Independent final evaluation	National consultant	30,000													Will be done at least two months before project closure
Audits and final project audit	Chief Auditor General	8,000													Will be done at least two months before the end of the project
Total M & E costs		110,000													

E. Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.

The project's results framework defines success indicators for implementation and the corresponding verification methods. A monitoring and evaluation system for the project will be established, based on the indicators and means of the means verification, will be confirmed during the launching event expected in October 2022

Any changes to be done to the results framework will require approval by the Project Steering Committee. The inception workshop is crucial for enhancing understanding of the projects and their implementation, building ownership of project results, and agreeing on modalities of project execution, thereby documenting mutual agreement on proposed execution arrangements among stakeholders and beneficiaries.

Table 17: Project's Results Framework

Level	Indicator (SMART, Gender and Youth segregated)	Baseline	Target	Means of Verification
Project Objective	1. Beneficiaries with improved adaptive capacity (men/women/youth 15–24).	0	3,000 direct beneficiaries (1,350 women; 1,200 men; 450 youth)	Beneficiary registry, midterm & final evaluation reports.
	2. Number of hectares of ecosystem restored and protected.	0 ha	600 ha restored and protected	GIS data, field verification, VNRC reports.
	3. Number of people accessing climate-resilient water supply.	0 Water point records	3,000 people (gender + youth disaggregated).	District Water Engineer reports.
	4. Number of people receiving and using climate information and health advisories.	0	1,500 people (60% women, 30% youth).	TMA dissemination logs, community records
Outcome 1: Diversified climate-resilient livelihood options adopted	1.1 20 livelihood groups adopting climate-resilient livelihoods such as beekeeping, poultry, rabbits, briquettes by year 2030	0	20 groups (50% women, 40% youth).	Group registers, training reports.
	1.2 % increase in income among beneficiary households.	0%	+30% average increase.	Household income surveys
Outcome 2: Improved water security	2.1 Number of functional climate-resilient water points operational.	0	10 water points installed and functional	Borehole logs, user committee reports.
	2.2 Number of households with improved water access (gender-disaggregated).	0	600 households (≈3,000 people)	Water user lists, District Water Engineer reports.
Outcome 3: Ecosystems restored and protected	3.1 Hectares of degraded land under restoration	0	600 ha restored	GIS, field verification, VNRC reports.
	3.2 Number of trees planted & survive after 12 months.	0	40,000 trees with ≥70% survival rate	Survival monitoring sheets.
Outcome 4: Improved climate-health resilience	4.1 Number of people reached by climate-health outreach	0	2,000 people (At least 60% women, 30% youth)	Health outreach reports.
	4.2 Number of vulnerable persons enrolled in climate-linked health insurance.	0	600 people	ICHF/TIKA enrolment data
Outcome 5: Strengthened climate knowledge & governance	5.1 Number of people trained on climate adaptation (gender + youth) Strengthened climate knowledge & governance	0	1,500 people (700 women, 450 youth).	Training attendance lists
	5.2 Number of committees strengthened (VWC, VNRC, livelihood groups).	0	30 committees strengthened	Meeting minutes, training register

F. Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

This project has been aligned with the Adaptation Fund Strategic Results Framework (SRF) in accordance with Annex 5 of the Operational Policies and Guidelines (OPG). The alignment ensures that the project objective, outcomes, outputs and indicators directly contribute to AF strategic priorities on climate-resilient livelihoods, water security, ecosystem restoration, climate-health resilience, and strengthened climate information services.

a) Alignment of Project Objective with AF Outcomes

The Project Objective is to strengthen the climate resilience, adaptive capacity and ecosystem health of vulnerable Hadzabe, Datoga and neighboring communities in Karatu; has been matched to four relevant AF Fund Outcomes. Each Project Objective Indicator has been mapped to one AF Outcome and one unmodified AF Outcome Indicator, ensuring clarity and precision in measuring long-term resilience gains.

Grant amounts have been assigned to each Fund Outcome in the upper section of the table, with the total equaling the project activity cost of USD 2,118,234.

b) Alignment of Project Outcomes and Outputs with AF Outputs

The project contains five outcomes structured around climate-resilient livelihoods, water security, ecosystem restoration, climate-health resilience and strengthened adaptive knowledge. Each outcome has been paired with the most appropriate AF Fund Output and corresponding Fund Output Indicator.

All Fund Output Indicators are taken directly from the AF SRF without modification. The lower section of the alignment table clearly reflects these mappings and includes activity-level grant amounts totalling USD 2,118,234, as required.

c) Improved Completeness and Measurability of Indicators

Outcome and objective indicators have been revised to ensure they are measurable, time-bound and fully aligned to AF indicator terminology. Indicators now capture changes in household adaptive capacity, water access, ecosystem health and access to climate information and early warnings. This strengthened alignment improves traceability from project activities to AF strategic priorities, enabling a robust monitoring framework for implementation and evaluation.

d) Alignment with Adaptation Fund Strategic Objectives

The project is fully aligned with the Adaptation Fund's Strategic Results Framework and contributes to the Fund's overarching goal of increasing resiliency at the community level to climate variability and change. Specifically, it supports:

Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic & environmental losses

Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets – through climate-resilient water infrastructure, community centres, and health and extension services.

Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress – through forest and landscape restoration, sustainable natural resource management and nature-based solutions.

Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas – through climate-resilient livelihood diversification for Hadzabe and neighbouring communities.

Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level – through participatory planning, FPIC processes, climate and health awareness, and community governance structures.

These linkages are reflected in the project's results framework and the AF Results Framework

e) Alignment with the AF results framework

The Detailed Results Framework has been revised to ensure full compliance with the Adaptation Fund Strategic Results Framework (2019). Each project outcome is linked to the appropriate AF Outcome and AF Outcome Indicator. Outputs are aligned with the corresponding AF Output and AF Output Indicator.

All indicators are taken directly from the AF SRF and have not been modified. Each output indicator is assigned an individual, non-lump budget line. The total budget allocation across all indicators equals USD 2,118,234. This alignment provides a clear, measurable structure for tracking project progress and reporting against AF standards.

Table 18. Alignment with AF Results Framework

Project Objective	Projective Objective	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Strengthen climate resilience, adaptive capacity, and ecosystem health of vulnerable communities in Karatu District	1. Number of households adopting climate-resilient livelihoods	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1 Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	6.1: \$ 372,605 6.2: \$ 161,858
	2. Number of people accessing climate-resilient water supply	Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	4.1. Responsiveness of development sector services to evolving needs from changing and variable climate 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	4.1: \$56,249 4.2: \$ 889,644
	3. Hectares of degraded ecosystems restored	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5.1 Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	\$128,569
	4. Institutions/community structures with strengthened capacity to plan, implement and monitor climate adaptation	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic & environmental losses	2.1: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	\$ 344,400
	Number of people receiving and using climate information	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at the local level	3.1: Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	165,320
TOTAL: USD 2,118,645				
Project Outcome	Project Outcome Indicator	Fund Output	Fund output indicator	Grant Amount (USD)
Outcome 1: Climate-resilient livelihood options	1.1 20 livelihood groups adopting climate-resilient livelihoods such as beekeeping, poultry, rabbits, briquettes by year	Output 6: Targeted individual and community livelihood strategies strengthened in	6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or	\$434,463

adopted	2029	relation to climate change impacts, including variability	community livelihood strategies	
	1.2 30% increase in household income from alternative livelihoods by year 2029	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.2.1. Type of income sources for households generated under climate change scenario	\$100,000
Outcome 2: Reliable climate-resilient water systems established	2.1 At least 10 functional climate-resilient water points operational by 2028.	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) 4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	4.1.1: \$550,000 4.1.2: \$ 245,893
	2.2 At least 600 households with improved water access by 2029	Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.2. No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by sector and scale)	4.1.2: \$150,000
Outcome 3: Ecosystems restored through community-led actions	3.1 At least 600 hectares of degraded land restored by 2029	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response 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)	\$73,568
	3.2 At least 70% of 40000 planted trees survive 2029	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response 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)	\$55,001
Outcome 4: Improved climate-health resilience	4.1 At least 2000 people reached by climate-health outreach services by 2029	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) 2.1.2 No. of targeted	2.1.1: \$65,320 2.1.2: \$ 100,000

			institutions with increased capacity to minimize exposure to climate variability risks (by type, sector, and scale)	
Outcome 5: Strengthened local & Indigenous adaptation knowledge	5.1 At least 1,500 people trained on climate adaptation by 2029	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	\$344,400
TOTAL: USD 2,118,645				

¹ The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology, but the overall principle should still apply

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

Table 19: Detailed Budget break-down of the Project

COMPONENT	OUTPUT	ACTIVITY	Y1	Y2	Y3	TOTAL (USD)	BUDGET NOTES
Component 1: Enhancing Climate- Resilient Livelihood Diversification	Output 1.1	1.1.1 Training on sustainable beekeeping	16,997	11,332	5,670	33,997	Covers three-day beekeeping trainings for beneficiaries across Baray, Endamaghan and Mang'ola wards (6 sessions over the project life). Participant refreshments/per diem: 540 participant-days @ \$18 = \$9,720; Facilitator fees: 36 facilitator-days @ \$150 = \$5,400; Venue hire: 18 venue-days @ \$120 = \$2,160; Demonstration PPE kits (veils, gloves, suits): 180 kits @ \$45 = \$8,100; Training materials/manuals: 180 participants @ \$10 = \$1,800; Participant transport allowance: 180 participants @ \$15 = \$2,700; Coordination, transport top-up & contingency: \$4,117.
		1.1.2 Provision of 1,500 beehives & equipment	20,895	13,930	6,965	41,790	Covers procurement and distribution of improved Langstroth-type beehives with starter accessories to 300 beekeeping households. Improved beehives (incl. frames): 1,500 hives @ \$22 = \$33,000; Harvesting & protective accessory kits: 300 kits @ \$15 = \$4,500; Transport & distribution to communities: 3 wards @ \$800 = \$2,400; Installation guidance & QA visits: 9 ward-visits @ \$110 = \$990; Coordination, transport top-up & contingency: \$900.
		1.1.3 Capacity building on honey marketing	12,905	8,603	4,302	25,810	Covers business development and market-access support for honey producer groups across the three wards. Branding, packaging & hygiene training (3 wards x 2 sessions): 6 sessions @ \$1,200 = \$7,200; Facilitator fees: 12 facilitator-days @ \$200 = \$2,400; Quality-control testing/certification: 3 wards @ \$1,800 = \$5,400; Trade fair & exhibition participation: 4 fairs @ \$1,500 = \$6,000; Coordination, transport top-up & contingency: \$4,810.
		1.1.4 Training on forming honey cooperatives	14,561	9,708	4,854	29,123	Supports formal registration and governance training for 3 honey cooperatives (one per ward). Cooperative registration & legal compliance fees: 3 cooperatives @ \$600 = \$1,800; Governance/leadership training (3 wards x 2 days): 6 training-days @ \$300 = \$1,800; Participant per diem: 270 participant-days @ \$35 = \$9,450; Stakeholder coordination meetings: 9 meetings @ \$500 = \$4,500; Mentorship & follow-up visits: 12 visits @ \$500 = \$6,000; Coordination, transport top-up & contingency: \$5,573.
	Sub-total Output 1.1	130,720					
	Output 1.2.	1.2.1 Training on sustainable energy	10,243	6,829	3,415	20,487	Covers community awareness sessions on climate change and household renewable-energy basics across the three wards. Participant per diem (240 participants x 2 days): 480 participant-days @ \$18 = \$8,640; Facilitator fees: 24 facilitator-days @ \$150 = \$3,600; Venue hire: 12 venue-days @ \$150 = \$1,800;

							Awareness/training materials: 240 participants @ \$12 = \$2,880; Coordination, transport top-up & contingency: \$3,567.
		1.2.2 Training on energy-saving stoves	16,510	11,007	5,504	33,021	Covers fabrication training and hands-on stove-building demonstrations for Datoga (blacksmith) artisans. Stove mould sets & fabrication tools: 30 sets @ \$220 = \$6,600; Raw materials (clay, metal sheeting, binders): 300 stoves @ \$50 = \$15,000; Facilitator/technical trainer fees: 24 trainer-days @ \$150 = \$3,600; Safety gear for artisans: 60 sets @ \$35 = \$2,100; Coordination, transport top-up & contingency: \$5,721.
		1.2.3. Training on briquette production	6,972	4,648	2,324	13,944	Covers procurement of briquette presses and technical training on biomass briquette production. Manual briquette presses: 6 presses @ \$550 = \$3,300; Biomass feedstock (start-up stock): 3 wards @ \$1,200 = \$3,600; Curing shed construction materials: 3 sheds @ \$900 = \$2,700; Technical training & safety equipment: 3 wards @ \$800 = \$2,400; Coordination, transport top-up & contingency: \$1,944.
		1.2.4. Support for stove & briquette enterprises	14,561	9,708	4,854	29,123	Supports market visibility and enterprise development for stove and briquette producer groups. Transport to local & regional fairs: 6 trips @ \$1,200 = \$7,200; Branding & packaging materials: 3 enterprises @ \$2,500 = \$7,500; Promotional materials & signage: 3 enterprises @ \$1,500 = \$4,500; Business development/advisory services: 3 enterprises @ \$2,000 = \$6,000; Coordination, transport top-up & contingency: \$3,923.
		1.2.5. Establish energy-saver community groups	5,000	3,333	1,667	10,000	Supports formation of 3 community energy-saver groups (one per ward). Group registration & constitution development: 3 groups @ \$500 = \$1,500; Leadership coaching & advisory sessions: 9 sessions @ \$400 = \$3,600; Group formation meetings: 9 meetings @ \$350 = \$3,150; Coordination, transport top-up & contingency: \$1,750.
	Sub-total Output 1.2	106,575					
	Output 1.3.	1.3.1 Training on rabbit & poultry production	12,593	8,394	4,195	25,182	Covers community-level trainings on rabbit and poultry husbandry, bio-security and animal welfare. Participant per diem (240 participants x 2 days): 480 participant-days @ \$18 = \$8,640; Facilitator fees: 24 facilitator-days @ \$150 = \$3,600; Venue hire: 12 venue-days @ \$200 = \$2,400; Training materials & bio-security handouts: 240 participants @ \$25 = \$6,000; Coordination, transport top-up & contingency: \$4,542.
		1.3.2 Construction of houses	21,166	14,111	7,055	42,332	Covers construction of 150 climate-resilient rabbit hutches and poultry shelters (ventilated, raised-floor design). Construction materials (timber, wire mesh, roofing): 150 units @ \$140 = \$21,000; Skilled labour: 300 labour-days @ \$30 = \$9,000; Unskilled labour: 450 labour-days @ \$15 = \$6,750; Transport of

							<i>materials: 3 wards @ \$900 = \$2,700; Coordination, transport top-up & contingency: \$2,882.</i>
	1.3.3 Provision of breeding stock	7,676	5,117	2,559	15,352		<i>Covers procurement and verified distribution of improved rabbit and poultry breeding stock. Improved rabbit breeding stock: 300 rabbits @ \$12 = \$3,600; Improved poultry breeding stock: 750 birds @ \$6 = \$4,500; Vaccination & health checks: 1,050 animals @ \$2 = \$2,625; Transport to beneficiary households: 3 wards @ \$700 = \$2,100; Coordination, transport top-up & contingency: \$2,527.</i>
	1.3.4 Provision of feed, drugs & equipment	11,693	7,795	3,898	23,386		<i>Covers starter feed, veterinary inputs and basic husbandry equipment for 150 beneficiary households. Starter & supplementary feed: 150 households @ \$70 = \$10,500; Veterinary drugs & vaccines: 150 households @ \$30 = \$4,500; Feeders & drinkers: 150 sets @ \$20 = \$3,000; Basic husbandry equipment: 150 households @ \$15 = \$2,250; Coordination, transport top-up & contingency: \$3,136.</i>
	1.3.5 Establishment of producers' groups	14,529	9,686	4,843	29,058		<i>Supports formation and mentoring of 3 rabbit/poultry producer groups (one per ward). Group registration & compliance costs: 3 groups @ \$800 = \$2,400; Leadership & governance training: 9 sessions @ \$500 = \$4,500; Regular coordination meetings: 18 meetings @ \$500 = \$9,000; Mentoring & follow-up visits: 12 visits @ \$600 = \$7,200; Coordination, transport top-up & contingency: \$5,958.</i>
	Sub-total Output 1.3	135,310					
	Output 1.4	1.4.1 Training on jewelry & leather	15,244	10,162	5,081	30,487	<i>Covers practical skills training in jewelry-making and leatherwork for Hadzabe and Datoga artisans. Participant per diem (90 artisans x 3 days): 270 participant-days @ \$20 = \$5,400; Tools for practical demonstrations: 90 artisans @ \$100 = \$9,000; Facilitator/artisan trainer fees: 36 trainer-days @ \$200 = \$7,200; Venue hire: 18 venue-days @ \$150 = \$2,700; Coordination, transport top-up & contingency: \$6,187.</i>
		1.4.2 Promote jewelry/leather business	24,912	16,608	8,304	49,824	<i>Covers branding, market linkage and trade-fair participation for jewelry and leather producer groups. Product branding & packaging support: 90 artisans @ \$150 = \$13,500; Trade fair participation (local & regional): 8 fairs @ \$2,000 = \$16,000; Promotional materials: 3 wards @ \$900 = \$2,700; Transport to markets/fairs: 8 trips @ \$700 = \$5,600; Business development services: 3 wards @ \$1,400 = \$4,200; Coordination, transport top-up & contingency: \$7,824.</i>
		1.4.3 Support forming maker groups	13,057	8,705	4,352	26,114	<i>Supports mobilization and formal registration of 3 artisan maker groups (one per ward). Group registration & legal compliance: 3 groups @ \$800 = \$2,400; Leadership & governance training: 9 sessions @ \$500 = \$4,500; Coordination meetings: 18 meetings @ \$450 = \$8,100; Mentoring visits: 12 visits @ \$550 = \$6,600; Coordination, transport top-up & contingency: \$4,514.</i>
	Sub-Total 1.4	106,425					
	Output 1.5	1.5.1 Training on crop production	13,900	9,268	4,634	27,804	<i>Covers climate-smart agriculture training (soil management, improved seed use, water efficiency, pest/disease control).</i>

							Participant per diem (240 participants x 2 days): 480 participant-days @ \$20 = \$9,600; Facilitator fees: 24 facilitator-days @ \$250 = \$6,000; Venue hire: 12 venue-days @ \$150 = \$1,800; Training materials: 240 participants @ \$25 = \$6,000; Coordination, transport top-up & contingency: \$4,404.
	1.5.2 Establish 10-acre demo farms	13,814	9,210	4,605	27,629		Covers establishment of climate-smart demonstration plots (10 acres total, split across the three wards). Land preparation: 10 acres @ \$700 = \$7,000; Improved seeds & planting materials: 10 acres @ \$550 = \$5,500; Fertilizers & soil amendments: 10 acres @ \$600 = \$6,000; Field tools & fencing: 3 wards @ \$1,400 = \$4,200; Coordination, transport top-up & contingency: \$4,929.
	1.5	55,433					
Total Component 1	534,463						
Component 2: Climate-Resilient Rural Water Infrastructure	Output 2.1	2.1.1 Hydro-geological survey	11,548	17,323	5,774	34,645	Covers mobilization and geophysical surveys to site up to 10 proposed boreholes. Mobilization & site identification: 3 wards @ \$1,200 = \$3,600; Geophysical survey & borehole siting: 10 sites @ \$2,400 = \$24,000; Data analysis & reporting: 1 report @ \$4,045 = \$4,045; Coordination, transport top-up & contingency: \$3,000.
		2.1.2 Drill boreholes + solar systems	46,193	64,290	28,097	138,580	Covers drilling, casing and solar-powered pumping systems for 10 boreholes across the three wards. Borehole drilling & casing: 10 boreholes @ \$8,300 = \$83,000; Solar pump & panel installation: 10 systems @ \$4,200 = \$42,000; Water testing & commissioning: 10 boreholes @ \$900 = \$9,000; Contractor supervision: 3 wards @ \$1,527 = \$4,580.
	Sub-total 2.1.	173,225					
	Output 2.2	2.2.1 Water storage + distribution + pumps	119,367	477,468	119,367	716,202	Covers storage, pipeline and pumping infrastructure serving the 10 borehole sites. Storage tanks (50-100 m3): 10 tanks @ \$22,000 = \$220,000; Pipelines & fittings: 10 systems @ \$34,000 = \$340,000; Solar-powered distribution pumps: 10 pumps @ \$5,000 = \$50,000; System integration & commissioning: 10 sites @ \$3,120 = \$31,200; Coordination, transport top-up & contingency: \$75,002.
		2.2.2 Construct community water points	36	145	36	217	Covers finishing works for community water points; core tap-stand, storage and distribution construction is captured under Activity 2.2.1. Signage boards for water points: 3 boards @ \$12 = \$36; Minor drainage touch-up works: 1 lump sum @ \$145 = \$145; Coordination, transport top-up & contingency: \$36.
	Sub-total for 2.2	716,419					

	Output 2.3	2.3.1 O&M awareness & training	12,083	12,083	12,083	36,249	Covers annual operation & maintenance training for water point caretaker committees across the three wards. Caretaker committee training (3 wards x 3 years x 2 days): 18 training-days @ \$875 = \$15,750; Facilitator/technical officer fees: 18 officer-days @ \$700 = \$12,600; Spare parts & basic maintenance toolkits: 9 ward-years @ \$878 = \$7,899.
	Subtotal 2.3	36,249					
	Output 2.4	2.4.1 Behavior change & governance	10,000	6,667	3,333	20,000	Covers community engagement on water-use behavior change and local water governance structures. Community engagement sessions (3 wards x 3 years): 9 sessions @ \$1,200 = \$10,800; Water governance committee training: 3 wards @ \$1,600 = \$4,800; IEC materials & outreach: 3 wards @ \$900 = \$2,700; Coordination, transport top-up & contingency: \$1,700.
	Subtotal 2.4	20,000					
Total Component 2	945,893						
Component 3: Forest & Non-Timber Product Resilience	Output 3.1	3.1.1 Training on integrated forest management	11,456	7,636	3,818	22,910	Covers community workshops and practical demonstrations on sustainable forest management. Participant per diem (240 participants x 2 days): 480 participant-days @ \$20 = \$9,600; Facilitator fees: 24 facilitator-days @ \$200 = \$4,800; Venue hire: 12 venue-days @ \$150 = \$1,800; Training materials: 240 participants @ \$15 = \$3,600; Coordination, transport top-up & contingency: \$3,110.
		3.1.2 Establish tree nurseries	25,329	16,886	8,443	50,658	Covers establishment of 3 community tree nurseries (one per ward), each producing seedlings for restoration and agroforestry. Seed procurement: 3 nurseries @ \$1,500 = \$4,500; Nursery tools & equipment: 3 nurseries @ \$2,200 = \$6,600; Fencing: 3 nurseries @ \$3,300 = \$9,900; Watering systems: 3 nurseries @ \$2,800 = \$8,400; Nursery labour (3 nurseries x 3 years): 9 nursery-years @ \$2,362 = \$21,258.
		3.1.3 Tree planting & maintenance	15,872	10,581	5,291	31,744	Covers seedling transport, planting labour and routine maintenance for restoration sites in the three wards. Seedling transportation: 3 wards @ \$900 = \$2,700; Planting tools: 3 wards @ \$700 = \$2,100; Planting & maintenance labour (3 wards x 3 years): 9 ward-years @ \$2,794 = \$25,144; Mulching & watering supplies: 3 wards @ \$600 = \$1,800.
		3.1.4 Establish tree-planting groups	11,628	7,752	3,877	23,257	Supports formation and coordination of 3 tree-planting groups (one per ward). Group mobilization & registration: 3 groups @ \$800 = \$2,400; Leadership training: 9 sessions @ \$500 = \$4,500; Constitution development: 3 groups @ \$600 = \$1,800; Coordination meetings: 18 meetings @ \$550 = \$9,900; Coordination, transport top-up & contingency: \$4,657.
Total Component 3.	128,569						

Component 4: Climate-Resilient Health Systems	Output 4.1	4.1.1 Vulnerability assessment	11,151	–	–	11,151	<i>Covers a one-off climate-health vulnerability assessment for Karatu District Council in Year 1. Data collection & field assessments: 1 assessment @ \$5,200 = \$5,200; Stakeholder consultations (3 wards): 3 consultations @ \$800 = \$2,400; Technical expertise/consultant fee: 8 consultant-days @ \$444 = \$3,551.</i>
		4.1.2 Translate results + action plan	6,258	–	–	6,258	<i>Covers translation of assessment findings into an actionable district health plan. Validation workshop: 1 workshop @ \$2,400 = \$2,400; Translation & dissemination materials: 1 lump sum @ \$1,858 = \$1,858; Action plan development: 1 lump sum @ \$2,000 = \$2,000.</i>
	Sub-total 4.1	17,409					
	Output 4.2	4.2.1 Climate-health mainstreaming	88,311	9,831	9,831	107,973	<i>Covers integration of climate-health risks into district health planning and capacity building of health workers. Health worker capacity-building training (Year 1 intensive, 3 wards): 6 training-days @ \$900 = \$5,400; Policy alignment workshops: 3 workshops @ \$2,400 = \$7,200; Technical assistance/consultant fees: 60 consultant-days @ \$500 = \$30,000; Health facility mainstreaming grants & follow-up support (annual, 3 wards x 3 yrs): 9 ward-years @ \$6,375 = \$57,375; Coordination, transport top-up & contingency: \$7,998.</i>
		Sub-total 4.2	107,973				
	Output 4.3	4.3.1 Community awareness on climate-health	14,096	410	410	14,916	<i>Covers community sensitization on climate-related diseases and adaptation across the three wards. IEC materials (posters, radio spots, leaflets): 1 campaign @ \$6,800 = \$6,800; Community sensitization meetings (3 wards x 3 yrs): 9 meetings @ \$700 = \$6,300; Facilitators & outreach logistics: 1 lump sum @ \$1,116 = \$1,116; Coordination, transport top-up & contingency: \$700.</i>
	Sub-total 4.3	14,916					
	Output 4.4	4.4.1 Emergency & first aid services	8,000	2,000	2,000	12,000	<i>Covers first-aid kits and emergency response training for the three wards. First aid kits & emergency response equipment: 3 wards @ \$2,000 = \$6,000; Training sessions (3 wards x 3 yrs): 9 sessions @ \$500 = \$4,500; Coordination with local responders: 3 wards @ \$400 = \$1,200; Coordination, transport top-up & contingency: \$300.</i>
		4.4.2 Health insurance for 600 people	8,682	2,170	2,170	13,022	<i>Covers community/national health insurance enrollment for 600 beneficiaries over three years. Insurance premiums (600 beneficiaries, Year-1 enrollment + 2 renewal cycles): 600 beneficiaries @ \$20 = \$12,000; Administrative & enrollment costs: 600 beneficiaries @ \$2 = \$1,002; Coordination, transport top-up & contingency: \$20.</i>
	Sub-total 4.5	25,022					
Total Component 4	165,320						

Component 5: Capacity Strengthening & Climate Knowledge	Output 5.1	5.1.1 Training needs assessment	18,477	4,619	4,619	27,715	Covers baseline training-needs assessment across Karatu District Council and the three wards. Baseline assessment & surveys: 3 wards @ \$4,500 = \$13,500; Consultations with stakeholders: 9 consultations @ \$800 = \$7,200; Data analysis & reporting: 1 report @ \$6,015 = \$6,015; Coordination, transport top-up & contingency: \$1,000.
		5.1.2 Develop materials & support CBTs	5,582	1,396	1,396	8,374	Covers development/printing of training manuals and technical backstopping for CBTs. Training manual development & printing: 3 wards @ \$1,500 = \$4,500; Facilitation costs: 3 sessions @ \$700 = \$2,100; Technical backstopping for CBTs: 1 lump sum @ \$1,774 = \$1,774.
		5.1.3 Training LGAs on climate resilience	7,371	1,843	1,843	11,057	Covers workshops with Local Government Authorities on climate-resilience planning. Workshops (3 wards x 3 yrs): 9 workshops @ \$650 = \$5,850; Training materials: 9 workshops @ \$250 = \$2,250; Coordination with LGAs: 1 lump sum @ \$2,957 = \$2,957.
		5.1.4 Disseminate project results	15,453	3,864	3,864	23,181	Covers documentation and dissemination of project results and learning. Documentation & reports: 3 years @ \$1,800 = \$5,400; Learning briefs: 6 briefs @ \$900 = \$5,400; Stakeholder dissemination meetings: 9 meetings @ \$700 = \$6,300; Media engagement: 3 years @ \$900 = \$2,700; Coordination, transport top-up & contingency: \$3,381.
	Sub-total 5.1	70327					
	Output 5.2	5.2.1 Community exchange visits	86,666	21,667	21,667	130,000	Covers inter-community learning exchange visits for representatives of the three wards. Transport: 90 participants @ \$500 = \$45,000; Accommodation: 270 participant-nights @ \$140 = \$37,800; Meals: 270 participant-days @ \$60 = \$16,200; Learning materials & coordination: 90 participants @ \$150 = \$13,500; Coordination, transport top-up & contingency: \$17,500.
		5.2.2 Build & equip resource centers	47,177	11,795	11,795	70,767	Covers construction/renovation and equipping of 3 community resource centers (one per ward). Minor construction/renovation: 3 centers @ \$15,000 = \$45,000; Furniture: 3 centers @ \$2,500 = \$7,500; ICT equipment: 3 centers @ \$3,800 = \$11,400; Learning materials & installation costs: 3 centers @ \$1,856 = \$5,569; Coordination, transport top-up & contingency: \$1,298.
	Sub-total 5.2	200767					
	Output 5.3	5.3.1 Train community committees	10,000	10,000	10,000	30,000	Covers annual governance and leadership training for community climate-adaptation committees. Governance/leadership training (3 wards x 3 yrs): 9 training-events @ \$2,222 = \$19,998; Meeting facilitation & mentoring: 9 ward-years @ \$1,111 = \$10,002.
	Sub-total 5.3	30,000					
	Output 5.4	5.4.1 Train on climate-data importance	5,384	21,538	5,384	32,306	Covers workshops on the use of climate information for community and district planning. Workshops on climate information use (3 wards x 3 yrs): 9 workshops @ \$1,400 = \$12,600; Materials: 9 workshops @ \$350 = \$3,150; Facilitators: 18 facilitator-days @ \$300 = \$5,400; Practical demonstrations: 9 workshops @ \$700 = \$6,300; Coordination, transport top-up & contingency: \$4,856.

		5.4.2 Install an agro-weather station	1,833	7,334	1,833	11,000	Covers procurement, installation and initial maintenance of one district agro-weather station. Weather station equipment (procurement): 1 station @ \$8,500 = \$8,500; Installation & calibration: 1 lump sum @ \$1,500 = \$1,500; Training on use: 1 lump sum @ \$700 = \$700; Initial maintenance: 1 lump sum @ \$300 = \$300.
	Sub-total 5.4	43,306					
Total Component 5	344,400						
Total Project Component and Activities	865,181		897,452		356,012	2,118,645	
Project Execution Costs	170,200		25,800		26,355	222,355	
Implementing fee	43,000		44,000		72,000	159,000	
GRAND TOTAL	2,500,000						

Table 20: Executing Entity Fee Breakdown

Activities	Y1(USD)	Y2(USD)	Y3(USD)	TOTAL (USD)	Notes
Project Staff Salary Top Ups					
Project Coordinator	5,000	5,000	5,000	15,000	Salary top-up: \$416.67/month × 12 months = \$5,000/year × 3 years.
Assistant Project Coordinator	4,000	4,000	4,000	12,000	Salary top-up: \$333.33/month × 12 months = \$4,000/year × 3 years.
Project Accountant	3,600	3,600	3,600	10,800	Salary top-up: \$300/month × 12 months = \$3,600/year × 3 years.
Baseline study	20,000	-	-	20,000	One-off, Year 1: Lead consultant fee (20 days × \$500/day = \$10,000); data collection/enumerators (10 enumerators × 10 days × \$50/day = \$5,000); field transport & logistics (\$3,000); report production & validation workshop (\$2,000).
Computers, printer & accessories	6,000	–	–	6,000	One-off, Year 1: 3 laptops (3 × \$1,200 = \$3,600); 1 heavy-duty office printer/scanner (\$1,200); accessories — UPS units, external storage, software licenses (\$1,200).
Office consumables	1,000	1,000	1,000	3,000	Stationery, toner/printing, small office supplies: \$83.33/month × 12 months = \$1,000/year × 3 years.
Transport (fuel) & vehicle insurance and maintenance	6,000	9,000	10,000	25,000	Year 1: Fuel, 8 months (vehicle procured mid-year) × \$500/month = \$4,000, + annual comprehensive insurance \$2,000 = \$6,000. Year 2: Fuel, 12 months × \$500/month = \$6,000, + insurance \$2,000, + scheduled maintenance/service \$1,000 = \$9,000. Year 3: Fuel, 12 months × \$500/month = \$6,000, + insurance \$2,000, + maintenance/service (higher mileage) \$2,000 = \$10,000.
Project Audits	2,000	2,000	2,000	6,000	Annual statutory external audit fee: \$2,000/year × 3 years.
Project vehicle	113,000	–	–	113,000	One-off procurement, Year 1: 2 field-suitable 4WD vehicle (unit price \$56,500)
Inception workshop	8,000	–	–	8,000	One-off, Year 1: Venue & catering (3 days × \$1,000/day = \$3,000); participant transport & accommodation (40 participants × \$75 = \$3,000); facilitation/consultancy fee (\$2,000).
Bank charges	1,600	1,200	755	3,555	Monthly bank/transaction fees: \$133.33/month × 12 = \$1,600 (Year 1). Year 2 bank charges \$100/month × 12 = \$1,200 and Year 3 slightly lower at \$62.92/month × 12 = \$755, reflecting reduced transaction volume in the project's final wind-down year.
TOTALS	170,200	25,800	26,355	222,355	
Project Coordinator	5,000	5,000	5,000	15,000	Salary top-up: \$416.67/month × 12 months = \$5,000/year × 3 years.
Assistant Project Coordinator	4,000	4,000	4,000	12,000	Salary top-up: \$333.33/month × 12 months = \$4,000/year × 3 years.
Project Accountant	3,600	3,600	3,600	10,800	Salary top-up: \$300/month × 12 months = \$3,600/year × 3 years.
Baseline study	20,000	-	-	20,000	One-off, Year 1: Lead consultant fee (20 days ×

					\$500/day = \$10,000); data collection/enumerators (10 enumerators × 10 days × \$50/day = \$5,000); field transport & logistics (\$3,000); report production & validation workshop (\$2,000).
Computers, printer & accessories	6,000	–	–	6,000	One-off, Year 1: 3 laptops (3 × \$1,200 = \$3,600); 1 heavy-duty office printer/scanner (\$1,200); accessories — UPS units, external storage, software licenses (\$1,200).
Office consumables	1,000	1,000	1,000	3,000	Stationery, toner/printing, small office supplies: \$83.33/month × 12 months = \$1,000/year × 3 years.
Transport (fuel) & vehicle insurance and maintenance	6,000	9,000	10,000	25,000	Year 1: Fuel, 8 months (vehicle procured mid-year) × \$500/month = \$4,000, + annual comprehensive insurance \$2,000 = \$6,000. Year 2: Fuel, 12 months × \$500/month = \$6,000, + insurance \$2,000, + scheduled maintenance/service \$1,000 = \$9,000. Year 3: Fuel, 12 months × \$500/month = \$6,000, + insurance \$2,000, + maintenance/service (higher mileage) \$2,000 = \$10,000.
Project Audits	2,000	2,000	2,000	6,000	Annual statutory external audit fee: \$2,000/year × 3 years.
Project vehicle	113,000	–	–	113,000	One-off procurement, Year 1: 2 field-suitable 4WD vehicle (unit price \$56,500)
Inception workshop	8,000	–	–	8,000	One-off, Year 1: Venue & catering (3 days × \$1,000/day = \$3,000); participant transport & accommodation (40 participants × \$75 = \$3,000); facilitation/consultancy fee (\$2,000).
Bank charges	1,600	1,200	755	3,555	Monthly bank/transaction fees: \$133.33/month × 12 = \$1,600 (Year 1). Year 2 bank charges \$100/month × 12 = \$1,200 and Year 3 slightly lower at \$62.92/month × 12 = \$755, reflecting reduced transaction volume in the project's final wind-down year.
TOTALS	170,200	25,800	26,355	222,355	

Table 21: Project Management Budget for NIE

Budget Category	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)	Total (USD)	Budget Notes
Project coordination and technical oversight	13,000	13,000	13,000	39,000	NIE Programme Manager part-time oversight allocation: \$1,083.33/month × 12 months = \$13,000/year × 3 years.
Financial management and fiduciary oversight	8,000	8,000	8,000	24,000	NIE Finance Officer fiduciary oversight allocation: \$666.67/month × 12 months = \$8,000/year × 3 years.
Project financial audit	2,000	3,000	3,000	8,000	Y1: Interim financial review/audit-readiness assessment, \$2,000. Y2 & Y3: Annual statutory external audit, \$3,000/year (audit firm fee covering full-scope review of project accounts).
Monitoring, reporting, and adaptive management	10,528	10,528	10,528	31,584	Quarterly progress reports to the Fund (4 × \$500 = \$2,000); 2 NIE-led monitoring/oversight visits (2 × \$1,500 = \$3,000); annual adaptive management review workshop (\$5,582). Total = \$10,582/year × 3 years.

Project Steering Committee meetings	7,000	7,000	5,000	19,000	Y1 & Y2: 4 quarterly Steering Committee meetings/year × \$1,750/meeting (venue, per diem & transport for committee members) = \$7,000/year. Y3: 4 meetings × \$1,250/meeting (reduced scope in project close-out year) = \$5,000.
Field supervision and technical backstopping missions	9500	9500	9500	28,500	3 supervision/technical-backstopping missions per year × \$3,167/mission (travel, accommodation, and per diem for the NIE technical team) = approximately \$9,500/year × 3 years = \$28,500.
Final Evaluation	-	-	30,000	30,000	One-off, Year 3: Independent evaluation consultant (20 days × \$1,000/day = \$20,000); field data collection & site visits (\$6,000); evaluation report production, validation workshop & dissemination (\$4,000).
TOTAL NIE MANAGEMENT COSTS	50,028	51,028	79,028	180,084	

H. Include a disbursement schedule with time-bound milestones.

Table 22: Disbursement schedule

	Upon signature of the Agreement	One Year after Project Start, a)	Year 2b)	Total
Scheduled date	January 2027	January 2028	January 2029	
Project Funds	1,014,297	923,252	382,367	2,341,000
Implementing Entity Fees	50,028	51,028	79,028	180,084
Total				2,500,000

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

A. Record of endorsement on behalf of the government²

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:

Prof. Peter Lawrance Makenga Msoffe, Deputy Permanent Secretary, Vice President's Office	Date: August, 8th, 2025
--	-------------------------

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

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 (National Environmental Policy (2021; National Climate Change Response Strategy (2021-2026); Nationally Determined Contributions (2021-2030); National Adaptation Program of Action (2007); National Environmental Master Plan for Strategic Interventions (2022-2032); Tanzania Development Vision 2025-2050) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund</u> and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
 Fredrick F. Mulinda Implementing Entity Coordinator	
Date: 9 th August 2021	Tel. and email: Tel. and email: +255 753 240 517 , nieaf@nemc.or.tz / kasigazi.koku@gmail.com
Project Contact Person: Ally Mdangaya	
Tel: +255767407200 Email: ally.mdangaya@karatu.go.tz	

5.0 ANNEXES

Annex1: Government Endorsement Letter

Annex 2: Summary of gender analysis against project components

Table 23: Summary of Gender Analysis against Project Component

Activity	Responsible Entity	Timeline	Cost (USD)	Monitoring Indicator
Component 1: Enhancing integrated climate-resilient livelihood diversification (Baray, Endamaghan, Mang'ola)				
Develop and apply a gender-sensitive guideline for the selection of farmers and women's group members to prevent elite hijacking of transformative agricultural interventions and ensure fair access.	PCU Gender Specialist; District Agriculture Officer	Year 1, Q1–Q2	3,000	Selection guideline approved; group membership lists disaggregated by sex/age
Establish women-based gardens and poultry houses to diversify gender-based livelihood systems.	PCU; District Community Development Officer	Year 1–2	15,000	Number of gardens/poultry houses established; number of women participants
Deliver Female Farmer Field School (FFFS) training, including provision of seeds and tools.	District Agriculture Officer; PCU Gender Specialist	Year 1–3, continuous	20,000	Number of women trained; seed/tool distribution records
Promote climate-smart, drought-resistant intercropping (sunflower, cassava, cereals, sweet potato, early-maturing varieties) to reduce food-insecurity risk for women and orphaned children during crop failure.	District Agriculture Officer	Year 1–3	8,000	Area under climate-smart crops; adoption rate disaggregated by gender of household head
Component 2: Enhancing climate-resilient rural water infrastructure and supply for Hadzabe and Datoga communities (Baray, Mang'ola, Endamaghan)				

Develop guidelines for a gender-sensitive water governance system, ensuring representation of women, youth, and vulnerable groups in Village Water Committees.	PCU Gender Specialist; District Water Engineer	Year 1, Q1–Q2	3,000	Governance guideline approved; % women/youth in VWC membership
Establish/strengthen gender-balanced Village Water Committee structures, correcting current male-dominated representation.	District Water Engineer; PCU	Year 1–2	6,000	VWC membership lists disaggregated by sex and age
Formulate and enforce water-use and water-source-protection bylaws through Village Assembly adoption.	VWC; District Water Engineer	Year 1–2	4,000	Bylaws documented and formally adopted
Provide conflict-sensitive mediation and awareness activities to address gender-based conflict (incl. separation/abandonment) linked to water scarcity, linked to the GBV referral pathway (Section 9).	PCU Gender Specialist; District Community Development Officer	Continuous	5,000	Water-related GBC cases logged and resolved/referred via GRM
Component 3: Improving climate change resilience of forests and non-timber forest products (Baray, Endamaghan, Mang'ola)				
Develop clear, inclusive bylaws on management of village ecosystems and forest resources, with defined gender representation requirements.	VNRC; District Environmental Officer	Year 1	4,000	Bylaws adopted; gender quota specified and documented
Ensure equitable representation in ecological/environmental management and restoration activities, with a target of 50% women among participants.	PCU Gender Specialist; VNRC	Continuous	6,000	Participation records disaggregated by sex (target: 50% women)

Support women- and youth-led ecological income-generating activities (e.g. beekeeping, NTFP processing), building on the existing Hadzabe–Datoga barter-trade relationship, using inclusive beneficiary-selection criteria.	PCU; VNRC	Year 1–3	15,000	Number of women/youth-led enterprises established; income data disaggregated by sex
Component 4: Promoting climate change resilience of health systems (Baray, Endamaghan, Mang'ola)				
Conduct gender- and vulnerability-sensitive climate-health awareness campaigns and improve service targeting for women, children, the elderly, and other marginalized groups facing reduced access to health services.	PCU; District Health Officer	Semi-annually	8,000	Number of awareness sessions held; service-uptake data disaggregated by sex, age, and vulnerability status
Component 5: Enhancing capacity of Karatu District Council and communities to design and implement climate change adaptation interventions				
Develop and implement a participation guideline ensuring at least 45% women beneficiaries in capacity-building and knowledge-management activities, countering social, economic and political barriers to women's engagement.	PCU Gender Specialist; Karatu District Council	Year 1 (guideline); ongoing implementation	3,000	Guideline approved; % women among capacity-building participants (target ≥45%)
Adapt training materials and delivery approaches for vulnerable and low-literacy groups to raise participation beyond groups with existing special/individual interests.	PCU; Karatu District Council	Continuous	6,000	Adapted training materials produced; attendance records disaggregated by sex, age, literacy

				level
Establish demonstration centers, eco-schools, and eco-villages with inclusive, gender-balanced management committees.	PCU; Karatu District Council	Year 2–3	20,000	Number of centers established; gender composition of management committees
Cross-Cutting: GAP Coordination, Capacity Building and Referral Systems				
Conduct a Year 1 gender baseline survey across all three wards to establish disaggregated baselines for the M&E framework (Section 10).	PCU Gender Specialist	Year 1, Q1	5,000	Baseline survey report finalized and disaggregated data entered into M&E system
Deliver gender-sensitization training for men, household heads, and traditional/cultural leaders (incl. Datoga elders) across all three wards.	PCU Gender Specialist; District Community Development Officer	Year 1–2	6,000	Number of sensitization sessions held; attendance disaggregated by sex and role
Establish and verify GBV-sensitive referral linkages to District Social Welfare, police Gender and Children's Desk, and health facilities in each ward.	PCU Gender Specialist	Year 1, before Component 2/3 field activities	3,000	Referral pathway confirmed functioning in 3 of 3 wards
Coordinate overall GAP implementation and compile sex- and age-disaggregated monitoring and evaluation reports across all components.	PCU Gender Specialist	Semi-annually	6,000	GAP monitoring reports submitted; disaggregated data consolidated
TOTAL (indicative)			146,000	

Annex 3: List of institutions and stakeholders consulted

Table 24: Stakeholders registration form during site visit for collection of projects

S/N	NAME	SEX	TITLE/OCCUPATION	MOBILE NUMBER
1.	LIGHNESS GINGANYI	Female	BLACKSMITH -REVENUE COLLECTOR	0628107372
2.	GUDDO MAHIYA	Male	HADZABE-REVENUE COLLECTOR	0743726636
3.	NYERERE SAMAEL	Male	CHAIR-HADZABE	
4.	LAJA GISUSI	Male	HADZABE	
5.	MKUNZUVU	Male	HADZABE	
6.	TARMO JANUARI	Male	HADZABE	
7.	MARUKA SABENA	Male	HADZABE	
8.	ITAMBI HADZA	Male	HADZABE	
9.	MAYU MARTINI	Male	HADZABE	
10.	PANDA MLEKWA	Male	HADZABE	
11.	ELIZA SHIMBI	Female	HADZABE	
12.	HELENA MANJANO	Female	HADZABE	
13.	ELIZABETH SALIBOGO	Female	HADZABE	
14.	ALIMU MASKATI	Male	HADZABE	
15.	SABINA SIAGT	Male	HADZABE	
16.	JUMBE KINYANYI	Male	BLACKSMITH	
17.	LAFAELI KINYANYI	Male	BLACKSMITH	
18.	GINYANYI	Male	BLACKSMITH	
19.	ADE KINYANYI	Female	BLACKSMITH	
20.	DAINGKENI KINYANYI	Male	BLACKSMITH	
21.	SABINA KINYANYI	Male	BLACKSMITH	
22.	GODFREY G. LUGUNA	Male	AG.DED KARATU DC	0756045323
23.	ALLY J. MDANGAYA	Male	DEMO-KARATU DC	0767407200
24.	FELIX D. SULLE	Male	DCDO KARATU DC	0764229090
25.	CHRISTOPHER O. KITUNDU	Male	AG.DANRO	0754959428
26.	SAUDA LEVERY	Female	HEALTH OFFICER	0754761246
27.	TWILAMBA NGWALE	Female	AG.DAICO	0756660708
28.	ENG.MBARAKA M. KILANGAI	Male	DM-KARATU	0755293780
29.	DENNIS BUBERWA	Male	DLFO	0764886684
30.	RESTIEL HHAYUMA	Female	TASAF	0754828227
31.	EVANCE ABDALLAH MVAMILA	Male	HAKI KAZI CATALYST	0754055565

32.	GODLISTEN DIDAS	Male	CONVOY OF HOPE	0692390032
33.	BERNADETTE BACHUBILA	Female	HAKI KAZI CATALYST	0754369812
34.	RICHARD MESSAI	Male	WORLD VISION	0787505357
35.	ANNE LEMA	Female	HAKI KAZI CATALYST	0754310346

Table 25: Summary of Consultations

Consultation	Male	Female	TOTAL
Community	16	5	21
Institutional/Stakeholders	09	5	14
	25	10	35

Annex 4: Environmental and Social Management Plan (ESMP) for Karatu District Council

**THE UNITED REPUBLIC OF TANZANIA
KARATU DISTRICT COUNCIL**



**Karatu Climate Resilience and Adaptation project for Hadzabe and Datoga communities
(KARAHADA)**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR
KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND
DATOGA COMMUNITIES (KARAHADA)**

July 2025

1. INTRODUCTION

1.1 Project Background

The project will specifically target the most vulnerable groups who have fewer resources to adapt to climate change in Karatu. It is built on the principles of local empowerment through the engagement of vulnerable and grassroots communities such as the Hadzabe (hunters and gatherers) and Datoga (blacksmith) tribes, as well as village governments and community groups.

The overall objective of the project is to enhance resilience and adaptive capacity to the effects of climate change while reducing the vulnerability of selected communities in Karatu District.

Specifically, the project will address the following objectives:

- (i) To Enhance integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District
- (ii) To enhance climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District
- (iii) To Improve climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District
- (iv) To Promote climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District
- (v) To Enhance capacity of Karatu District Council and Communities in three wards of Baray, Endamaghan and Mang'ola to design and implement climate change adaptation interventions and improve level of understanding of climate change related issues

The project has the following five (5) components:

Component 1: Enhancing integrated climate change–resilient livelihood diversification systems in the selected sites in the three wards of Baray, Endamaghan, and Mang'ola in Karatu District.

Component 2: Enhancing climate-resilient rural water infrastructure and supply systems in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in the Baray, Mang'ola, and Endamaghan Wards of Karatu District.

Component 3: Improving climate change resilience of forests and non-timber forest products in selected villages within the three wards of Baray, Endamaghan, and Mang'ola in Karatu District.

Component 4: Promoting climate change resilience of health systems in the three wards of Baray, Endamaghan, and Mang'ola in Karatu District.

Component 5: Enhancing the capacity of Karatu District Council and communities in the three wards of Baray, Endamaghan, and Mang'ola to design and implement climate change adaptation interventions, and improving the level of understanding of climate change related issues.

The expected outcomes of the project are:

- a) **Increased food security, income, and resilience** to climate change impacts through climate-smart practices in selected villages in the three wards of Baray, Endamaghan, and Mang'ola.
- b) **Enhanced climate-resilient rural water supply systems** in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities in selected villages in the three wards of Baray, Endamaghan, and Mang'ola.
- c) **Improved forest services and functions** to sustain climate-resilient livelihoods in selected villages in the three wards of Baray, Endamaghan, and Mang'ola.
- d) **Improved health and sanitation infrastructure and services** for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages in the three wards of Baray, Endamaghan, and Mang'ola.
- e) **Improved capacity of Karatu District Council and the Hadzabe and Datoga communities** in planning, implementing, and monitoring climate adaptation actions.

1.2 Project Coordination and Implementation Arrangements

1.2.1 The National Implementing Entity (NIE)

The project will be implemented by the National Environment Management Council (NEMC). NEMC has significant experience in implementing projects and programmes of this nature, with a dedicated unit for climate change adaptation and execution of the NIE mandate related to Adaptation Fund (AF) operations in the United Republic of Tanzania. The following implementation services will be provided by NEMC under this project:

- i) Overall coordination and management of NIE functions and responsibilities.
- ii) Facilitation of interactions with the Adaptation Fund Secretariat and other related stakeholders at the global scale.
- iii) Oversight of project implementation and reporting on budget performance.
- iv) Quality assurance and accountability for outputs and deliverables during project development, implementation, and completion phases.
- v) Receipt, management, and disbursement of AF funds in accordance with the Adaptation Fund's financial standards.
- vi) Oversight and quality assurance of evaluation processes for project performance, ensuring that lessons learned and best practices are incorporated to improve future projects in the United Republic of Tanzania.
- vii) General administration and support services, including legal services, procurement and supply management, IT, and human resources management.

1.2.2. The Executing Entities:

Tanzania Environmental Protection Organization, jointly with Karatu District Council, will serve as the overall coordinator of the project through the services of a Project Management Unit (PMU). The PMU will consist of a Project Coordinator, a Monitoring and Evaluation Officer, a Project Driver, and a Project Accountant, who will also serve as the Project Administrative Support Staff. Strong participation of other District staff will be ensured at the project implementation level, given that the activities involve cross-sectoral coordination.

A Project Steering Committee (PSC) will be established to oversee project execution. The Committee will be chaired by the Chairperson of Karatu District Council. The Secretariat of the Committee will be the PMU, operating through the District Executive Director and the Executive Director of TAEPO.

The members of the Project Steering Committee will include:

- District Executive Director of Karatu
- Chairperson of the Karatu District Council
- One representative from each of the following sector ministries:
 - o Ministry responsible for rural water supply (RUWASA)
 - o Ministry responsible for local governments
 - o Ministry responsible for agriculture
 - o Ministry responsible for livestock
 - o Ministry responsible for environment and climate change
 - o Ministry responsible for forestry and natural resources
 - o Ministry responsible for energy
 - o Ministry responsible for industries
 - o Ministry responsible for tourism
- One officer from the National Environment Management Council (NEMC)
- Two members from TAEPO
- One representative from the Tanzania Meteorological Agency (TMA)
- One representative from the Tanzania Forest Services Agency (TFS)

1.3 Project Beneficiaries

The targeted project beneficiaries include mainly the local communities in Karatu District Council, such as hunters and gatherers, blacksmith farmers, schools, health facilities, vocational colleges, and other rural communities that are vulnerable to climate change effects. Special attention will be given to vulnerable

groups including women, youth, the elderly, persons with disabilities, flood and drought victims, and HIV/AIDS orphans. Beneficiaries will be selected through a transparent and community-driven process, involving Village Assemblies and community consultations. The selection will prioritise individuals and groups based on vulnerability to climate change impacts, level of interest and commitment to project activities, and validation by the community to ensure fairness and avoid exclusion or elite capture. In areas inhabited by Indigenous Peoples such as the Hadzabe, the Free, Prior and Informed Consent (FPIC) process will be followed to ensure their meaningful participation and safeguard their rights. The project will also ensure equitable participation of women, youth, and persons with disabilities in all project activities.

2.0 COMPONENTS OF THE ESMP FOR THE KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES-KARAHADA

The ESMP for the KARAHADA-Project includes the following components:

- (a) Sub project activity;
- (b) Potential adverse effects/impacts;
- (c) Proposed mitigation measures;
- (d) Institutional responsibility for mitigation (including enforcement and coordination);
- (e) Monitoring requirements;
- (f) Responsibility for monitoring and supervision;
- (g) Implementation schedule; and
- (g) Cost estimates.

A template of the Environmental and Social Management Plan to guide implementation is provided as **Table 6**

3.0 PREVAILING POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL IMPACT MANAGEMENT

Here is your text cleaned up with proper spacing, punctuation, grammar corrections, and improved readability while keeping the original meaning intact:

This section highlights the policies, legal, and institutional frameworks for environmental and social impacts management of the proposed projects in the United Republic of Tanzania. Generally, the implementation of this project will be governed by several national guidelines, policies, and regulations, including:

- National Environmental Policy, 1997
- National Water Policy, 2002
- Forestry Policy, 2002
- National Environmental Management Act, 2004
- Water Resource Management Act, 2009
- National Agriculture Policy, 2013
- Livestock Policy, 2004
- National Gender Policy, 2002
- Community Development Policy, 1996
- Water Supply and Sanitation Act, 2009
- The HIV and AIDS (Prevention and Control) Act of 2008
- Occupational Health and Safety Act, 2003
- National Climate Change Response Strategy, 2021
- National Biodiversity Strategy and 500 Action Plan (NBSAP) 2015–2020
- Water Safety Plan – Resilient to Climate Change for Rural Water Supply Services (WSP-RCC-RWS), 2015
- Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations, 2005
- Water Quality Management Standards Regulations, 2007

The National Environmental Management Act, 2004 has provisions that protect and enhance the quality of the natural and cultural environment of Tanzania for the benefit of both present and future generations, and assures all citizens a sound and safe environment adequate for their health and well-being. It is the overall guiding document on the administration and management of environmental matters and social safeguards. It provides the legal and institutional framework for the sustainable management of the environment in Tanzania. It outlines principles for environmental management, impact and risk assessment, prevention and control of pollution, waste management, environmental quality standards, public participation, compliance, and enforcement.

Sections 82(1) and 230(2)(h) and (q) of EMA Cap. 191 of 2004, together with the EIA and Audit Regulations, 2005, provide for the procedures to conduct EIA and environmental audits, and identify/categorize projects which are mandatory or non-mandatory to conduct EIA.

According to the National Environmental Management Act (2004), the Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations (2005), and sectoral regulations and guidelines of the United Republic of Tanzania, this project does not fall within the First Category of projects that require a full EIA, as the proposed interventions possess no significant negative impacts on the environment or the community. There is no activity under any component that requires a full EIA, as the magnitude of impacts is small and the locations of the interventions do not warrant further assessments.

However, the Environmental Impact Assessment (EIA) and Environmental Audit (EA) Regulations (2005) will guide the implementation of the Environmental and Social Management Plan (ESMP) during the execution of project activities under Components 1 to 5.

The National Water Resources Management Act, 2009, the National Environmental Management Act, 2004, the National Water Quality Management Standards and Regulations, 2007, and the Water Safety Plan – Resilient to Climate Change for Rural Water Supply Services (WSP-RCC-RWS), 2015, provide for “Water Use Rights and Permit Standards”. The project shall comply with the relevant sections of these Acts, Standards, and Regulations to ensure sustainable utilization and conservation of water, particularly with regard to water supply and micro-irrigation-related activities under Component 2. Water supply activities will largely involve the construction of boreholes and the development of supply systems. It is expected that water use permits will need to be obtained. Probable project micro-irrigation-related activities may require letters and permits for water users, but these can be easily processed by the Karatu District Authority through the Karatu Rural Water Supply Agency (RUWASA).

Irrigation interventions in Tanzania are required to adhere to the National Irrigation Act, 2013 (No. 5 of 2013). The Act provides detailed standards and guidelines for farmers and block farming groups to form Water User Associations (WUAs), stressing the need for communities to work together and manage water resources sustainably. The project will abide by these standards and guidelines.

The project will also comply with the Forest Act, 2002 (Act No. 7 of 2002) and the Environmental Management Act, 2004, which provide guidance for reforestation, tree planting, restoration, reclamation, and rehabilitation of ecosystems, as well as all activities that involve planting trees and environmental conservation.

The project shall apply the standards under the Long-Term Perspective Plan 2010–2025 and its Five-Year Development Plans, particularly the Third National Five-Year Development Plan 2021/22–2025/26, the Community Development Policy, 1996, the National Water Policy, 2002, and the Cooperative Development Policy, 2002 for the establishment of community cooperatives, their operational procedures, and relevant gender policies, as well as other standards that protect women, the elderly, children, and the most vulnerable households. The project will also align with the financial planning, management, and audit guidelines of the United Republic of Tanzania.

Table below provides key policies, legislation and strategies which will guide the implementation of this ESMP.

Table 26: National Policies, legislation and strategies which implementation of this ESMP

Name of Policy / Legislation	Relevance to the Proposed Project
National Environmental Policy,	Although the proposed project promotes social and environmental integrity, its

1997	implementation will be guided by environmental management tools that promote environmentally friendly technologies. This will support actions under Components 1, 2, and 3, ensure meaningful stakeholder involvement, and fully integrate gender considerations.
National Water Policy, 2002	Identifies the importance of water resources for social and economic development, including irrigation and domestic supply. Emphasizes strong institutions to enforce standards in rural water supply construction and service delivery. Particularly relevant to activities under Components 1 and 2.
National Land Policy, 1997	Provides for strategic planning, rapid appraisal, identification of key issues in land and environmental management, and participatory provision of housing, infrastructure, and services. Relevant to all activities under Components 1, 2, and 3.
National Investment Promotion Policy, 1996	Requires all investment projects to subscribe to established environmental standards and conserve the environment for sustainable development.
National Energy Policy, 2003	Requires environmental impact assessments for all energy programmes/projects; promotes energy efficiency, conservation, cleaner production, pollution control, renewable energy, and efficient wood-fuel technologies to protect woodlands and biomass resources.
National Sustainable Industrial Development Policy, 1996	Advocates sustainable industrial production and waste minimization through cleaner production options.
National Strategy for Growth and Reduction of Poverty (MKUKUTA/NSGRP), 2008	Recognizes the role of industries in poverty eradication and recommends their strategic establishment with environmental considerations mainstreamed as a cross-cutting issue.
Tanzania Vision 2025	Recognises Tanzania's high climate dependence (especially agriculture), the major economic costs already caused by extreme weather events (droughts and floods), and the need for adaptation actions to protect growth and livelihoods.
Community Development Policy, 1996	Community development is achieved when people have strong, sustainable adaptive capacity to climate change, identify climate-related problems, and participate in planning, decision-making, and implementation of development and adaptation initiatives.
National Gender Policy, 2002	Provides guidelines for gender-sensitive plans and strategies in all projects and sectors, ensuring equal opportunities for men and women. The project will align with the policy and the Adaptation Fund's Environmental and Social Policy.
National Health Policy, 2003	Aims for universal access to safe water, reduction of malnutrition and disease burden, lower infant/maternal mortality, and increased life expectancy through improved environmental health, sanitation, cleanliness, and water-quality monitoring.
National Agriculture Policy, 2013	Seeks to improve food security, alleviate poverty, and promote integrated, sustainable use and management of natural resources (land, soil, water, vegetation) while building adaptation and resilience in the sector. Activities under Components 1, 2, and 3 align closely with this policy.
Livestock Policy, 2004	recognizes livestock's contribution to agricultural GDP and poverty reduction; notes that 99 % of livestock is owned by smallholder farmers and pastoralists who are highly vulnerable to climate change. Activities under Components 2 and 3 will follow this policy.
Forestry Policy, 2002 (under review)	Addresses climate-change impacts on forests; guides biodiversity protection, soil and water conservation, expansion of forest cover, use of adaptive species, corridor linkage, beekeeping, and tree planting as adaptation and livelihood measures.
National Climate Change Response Strategy, 2021	Vision: Enhance climate resilience and reduce vulnerability of natural and social systems. Mission: Establish effective adaptation and mitigation mechanisms with international cooperation to achieve sustainable development in line with Vision 2025, Five-Year Plans, and global frameworks.
Nationally Determined	Focuses on reducing climate vulnerability, enhancing long-term resilience,

Contributions (NDCs) 2020-2025	improving water access from 60 % to over 90 %, and establishing adaptation plans at all government levels, including villages.
National Environmental Management Act (EMA) Cap. 191 of 2004	Overall guiding law for environmental administration and social safeguards; establishes principles for impact assessment, pollution prevention, waste management, public participation, and enforcement. The project complies fully and will use EMA to guide climate-resilient actions.
National Biodiversity Strategy and Action Plan (NBSAP) 2015-2020	Highlights Tanzania's mega-biodiversity, its socioeconomic value, causes of loss, and five strategic goals (mainstreaming, reducing pressures, safeguarding ecosystems, enhancing benefits, and capacity building). The project will support biodiversity conservation under Components 1, 2, and 3.
Water Resources Management Act, 2009	Establishes integrated sustainable water management principles; requires Strategic Environmental Assessment and EIA; emphasises water's role in development and strong institutions for rural water supply. Highly relevant to Components 1 and 2.
Water Supply and Sanitation Act, 2009	Guarantees citizens' right to efficient, effective, and sustainable water and sanitation services while protecting water resources and combating climate-induced scarcity in vulnerable communities.
Employment and Labour Relations Act, 2004	Prohibits child labour, regulates contracts, protects core labour rights, and provides dispute-resolution mechanisms. Will be adhered to during community employment under Components 1–4.
Occupational Health and Safety Act, 2003	Protects workers from occupational hazards, mandates safety gear, clean drinking water, sanitary facilities, and washing facilities at workplaces. All relevant provisions will be followed.
National Land Act Cap. 113, 2002	Governs land administration and occupation. Defines hazardous land and rights of occupancy. The project will not acquire land or resettle anyone.
HIV and AIDS (Prevention and Control) Act, 2008	Requires workplace HIV/AIDS programmes and non-stigmatisation. The project empowers vulnerable groups (especially girls and women) and improves livelihoods, thereby reducing HIV vulnerability.
Workers Compensation Act No. 20, 2008	Provides compensation for work-related injury, disability, or death. Relevant because workers may face hazards during implementation of Components 1, 2, and 3.
EIA and Audit Regulations, 2005	Made under EMA; sets procedures and categorisation of projects. Because the project has no significant negative impacts, full EIA is not required, but the regulations will guide ESMP implementation.
Environmental Hazardous Waste Regulations, 2009	Governs storage, packaging, transport, treatment, and disposal of hazardous waste. The project will not generate hazardous waste.
Water Quality Management Standards Regulations, 2007	Sets minimum water-quality standards, protects human health and the environment, and regulates pollutant discharges. All proposed water supplies will meet these standards.

Table 27: Relevant regional and International Conventions

Name of International Convention / Protocol / Agreement	Relevance to the Proposed Project
United Nations Convention on Biological Diversity (UNCBD / CBD) Ratified by Tanzania in 1996	The CBD has three objectives: (i) conservation of biological diversity, (ii) sustainable use of its components, and (iii) fair and equitable sharing of benefits arising from the utilization of genetic resources. The Convention requires Parties to integrate biodiversity conservation into sectoral and cross-sectoral plans and to use environmental assessment as a key tool. Article 14 mandates impact

	assessment and minimization of adverse effects on biodiversity. Article 8(j) and related provisions call for respect, preservation, and equitable sharing of benefits from traditional knowledge, innovations, and practices of indigenous and local communities. Article 10(c) promotes the protection and encouragement of customary use of biological resources compatible with conservation needs. The project will conserve biodiversity, enhance ecosystem functions and services, and apply relevant traditional knowledge, particularly through activities under Components 3 and 4 .
United Nations Framework Convention on Climate Change (UNFCCC) Ratified by Tanzania in 1996	Establishes the global framework to protect the climate system for present and future generations by stabilizing greenhouse gas concentrations at a level that prevents dangerous anthropogenic interference with the climate system, while allowing ecosystems to adapt naturally, ensuring food security, and enabling sustainable economic development. The Convention promotes both adaptation and mitigation actions. The proposed project is fully aligned with the objectives and actions promoted under the UNFCCC.
United Nations Convention to Combat Desertification (UNCCD) Ratified by Tanzania in 1997	Aims to combat desertification and mitigate the effects of drought, particularly in Africa, through long-term integrated strategies that improve land productivity, rehabilitate, conserve, and sustainably manage land and water resources, leading to better living conditions at the community level. The project design directly implements the requirements of the UNCCD through land and water conservation measures and community-level resilience-building activities.
The Paris Agreement entered into force 2016; Tanzania's updated NDC submitted 2021	Acknowledges climate change as a common concern of humankind and obliges Parties to respect, promote, and consider human rights, the rights of indigenous peoples and local communities, gender equality, empowerment of women, and intergenerational equity when taking climate action. It establishes Nationally Determined Contributions (NDCs) and promotes enhanced adaptation, mitigation, and resilience. The project fully reflects the spirit and guidance of the Paris Agreement through climate-resilient water supply, sustainable agriculture, ecosystem restoration, and community empowerment activities under Components 1, 2, 3, 4, and 5, thereby contributing to both national and global adaptation and mitigation efforts.

4.0 GUIDANCE FOR IMPLEMENTING ENTITIES ON COMPLIANCE WITH THE ADAPTATION FUND ENVIRONMENTAL AND SOCIAL POLICY

The Adaptation Fund (AF) Environmental and Social Policy (ESP), originally approved in November 2013 and revised in March 2016, ensures that all projects and programmes supported by the Fund deliver positive environmental and social benefits while avoiding, minimizing, or mitigating adverse environmental and social risks and impacts. Effective management of these risks is considered fundamental to achieving successful and sustainable project outcomes.

The ESP is structured around **15 principles**. After screening, **11 principles** have been identified as relevant to the proposed project, namely:

1. Compliance with the Law
2. Access and Equity
3. Marginalized and Vulnerable Groups
4. Gender Equality and Women's Empowerment
5. Involuntary Resettlement

6. Protection of Natural Habitats
7. Conservation of Biological Diversity
8. Climate Change
9. Pollution Prevention and Resource Efficiency
10. Public Health
11. Physical and Cultural Heritage
12. Lands and Soil Conservation

This Environmental and Social Management Plan (ESMP) demonstrates how the project will fully comply with these 11 principles throughout its lifecycle. A detailed description of each applicable principle, the associated risks (if any), and the specific mitigation and enhancement measures incorporated into the project design and implementation arrangements is provided in **Table 4**.

Table 28: Principles to Guide the Screening and Management of Environmental and Social Impacts of planned activities for the Proposed Activities

Principle	Description and Compliance Measures for the KARAHADA Project		
Principle 1: Compliance with the Law	The project will comply with all applicable national and international legal frameworks. In Tanzania, relevant laws include the Environmental Management Act (2004), Water Resources Management Act (2009), Village Land Act (1999), Forest Act (2002), Wildlife Conservation Act (2009), and Water Supply and Sanitation Act (2019). Environmental and Social Impact screening will be conducted through NEMC in accordance with national environmental regulations. Borehole drilling and water infrastructure development will follow the required permits and technical approvals from RUWASA and the relevant district authorities.	Items 1, 2, 3, 4, 6	\$180,000
Principle 2: Access and Equity	The project ensures fair and equitable access to project benefits through a transparent community-driven beneficiary	Items 3, 5, 7	\$235,000

	selection process. Village Assemblies and community validation processes will guide participation. At least 50% of beneficiaries will be women, and 30% will be youth. Activities such as beekeeping groups, poultry/rabbit groups, water user associations, and livelihood training will prioritise vulnerable households, including women-headed households, Indigenous Peoples, and persons with disabilities. The project will not impede access to essential services such as water, health, sanitation, land, or energy.		
Principle 3: Marginalized and Vulnerable Groups	The project specifically targets vulnerable and marginalised groups, including the Hadzabe Indigenous hunter-gatherer communities, Datoga communities, women, youth, elderly persons, persons with disabilities, and HIV/AIDS affected households. Activities are designed to enhance their adaptive capacity and livelihoods without imposing disproportionate impacts. Participation will be ensured through inclusive consultations, targeted livelihood opportunities, and monitoring of social impacts during implementation.	Items 3, 5, 8	\$238,000
Principle 4: Human Rights	The project will respect internationally recognized human rights, including those outlined in the Universal Declaration of Human Rights (UDHR). The project promotes rights to water, food security, health, and sustainable livelihoods. Community consultations conducted during project preparation and implementation ensure participatory decision-making and respect for the cultural rights of Indigenous	Item 7	\$3,000

	communities.		
Principle 5: Gender Equality and Women's Empowerment	Gender equality is integrated into project design and implementation in accordance with the Adaptation Fund Gender Policy. The project will ensure equal participation of women and men, promote women's leadership in producer groups and water committees, and support women-focused livelihood activities such as poultry production, jewellery making, and climate-smart agriculture. Gender-responsive training and monitoring indicators will ensure women receive equitable benefits.	Items 5, 8	\$152,000
Principle 6: Core Labour Rights	The project will respect ILO core labour standards including elimination of forced labour, child labour, and discrimination. Contractors and project partners will follow national labour laws and occupational safety regulations. All project workers will be engaged through fair contracts, safe working conditions, and equal employment opportunities regardless of gender or ethnicity.	Item 8	\$6,000
Principle 7: Indigenous Peoples	Indigenous Peoples (Hadzabe) are present in the project area. The project will fully respect the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and apply Free, Prior and Informed Consent (FPIC) during project design and implementation. Indigenous communities will participate in decision-making, livelihood activities, ecosystem restoration initiatives, and water management structures. Their cultural practices, land access, and traditional knowledge will be respected and safeguarded.	Item 1	\$21,000
Principle 8: Involuntary Resettlement	The project will not involve involuntary resettlement or	Item 1	\$21,000

	land acquisition. All project activities will be implemented on existing village land voluntarily allocated by Village Assemblies. Ecosystem restoration areas will be community-managed lands with no displacement of households or economic activities.		
Principle 9: Protection of Natural Habitats	Project activities will avoid degradation of natural habitats and instead promote restoration. Approximately 600 ha of degraded landscapes will be restored through assisted natural regeneration, tree planting, and watershed protection. Activities such as sustainable beekeeping and ecosystem-based adaptation will strengthen conservation of natural habitats.	Items 2, 9	\$50,000
Principle 10: Conservation of Biological Diversity	The project promotes biodiversity conservation through ecosystem restoration, protection of forest resources, and sustainable use of non-timber forest products. Indigenous tree species will be used for restoration and the project will avoid introduction of invasive species. Enhanced forest cover will improve habitats for wildlife and pollinators.	Item 9	\$10,000
Principle 11: Climate Change	The project contributes positively to climate adaptation and will not significantly increase greenhouse gas emissions. Activities such as ecosystem restoration, improved cookstoves, sustainable livelihoods, and climate-resilient water systems will reduce environmental pressure and support climate resilience of communities.	Item 9	\$10,000
Principle 13: Public Health	Public health benefits will result from improved access to clean water, climate-resilient health infrastructure, hygiene promotion, and reduced indoor air pollution	Item 4	\$18,000

	through improved cookstoves. Health impact screening indicates no significant negative public health risks from project activities.		
Principle 14: Physical and Cultural Heritage	The project will respect cultural heritage sites and traditional knowledge of Hadzabe and Datoga communities. Activities will avoid damage to cultural sites, sacred areas, and traditional landscapes. Community consultations will ensure cultural practices are respected during project implementation.	Item 1	\$21,000
Principle 15: Lands And Soil Conservation	Soil conservation measures will be incorporated through reforestation, agroforestry, soil and water conservation structures, and restoration of degraded landscapes. These measures will prevent erosion, protect productive land, and enhance ecosystem services critical for climate-resilient livelihoods.	Item 2	\$40,000
		TOTAL	\$277,000

5.0 THE ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK

KARATU CLIMATE RESILIENCE AND ADAPTATION PROJECT FOR HADZABE AND DATOGA COMMUNITIES (KARAHADA)

The Environmental and Social Management Plan (ESMP) outlined below consists of a set of measures for: (a) screening (i.e. determination of potential adverse environmental and social impacts); (b) mitigation; (c) monitoring; and (d) institutional arrangements to be undertaken during the planning, design, procurement, and implementation stages of the planned activities to be financed out of the proceeds of the project, so as to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

Some of the project interventions/investments to be supported may have adverse environmental and social impacts that must be addressed before they are implemented. This ESMP is necessary to prescribe clear project arrangements for the preparation, review, approval, and implementation of activities in order to adequately address both Adaptation Fund (AF) and national environmental and social safeguards issues and principles. It provides distinct arrangements for addressing environmental and social issues associated with project implementation. Table 5 provides a template for developing the detailed ESMP, including the actions needed to implement the proposed mitigation and enhancement measures.

OBJECTIVES OF THE ESMP FOR THE KARAHADA PROJECT

The overall objective of this ESMP is to provide an environmental and social screening framework for the project. It is intended to be used as a practical tool during project formulation, implementation, and monitoring. It explicitly describes the steps to be undertaken in the implementation of planned sub-projects under the project.

This will ensure that the implementation of sub-projects is carried out in an environmentally and socially sustainable manner. It will also provide a framework to enable communities/beneficiaries to screen sub-projects, identify potential impacts, and implement measures to address adverse environmental and social impacts.

Specifically, the ESMP aims to: i) Establish clear procedures and methodologies for the environmental and social planning, review, approval, and implementation of activities to be executed under the project; ii) Assess the potential environmental and social impacts of envisaged project activities; iii) Propose mitigation measures that will effectively address identified negative impacts; iv) Specify appropriate roles and responsibilities, and outline the necessary reporting procedures for managing and monitoring environmental and social concerns related to the project; and v) Determine the training, capacity-building, and technical assistance needed to successfully implement the provisions of the ESMP by the various stakeholders.

6.0 GENERAL VIEW OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

a) Positive Impacts

Implementation of the proposed project is expected to generate the following positive environmental and social impacts:

i. Integration of livelihood systems (small animal keeping, improved agricultural crop varieties, modern beekeeping, improved jewelry and blacksmith activities, and reliable water supply and access) will profoundly reduce the supply-and-demand pressure on natural resources. ii. Establishment of a Farmer Field and Food Systems (FFFS) demonstration center will facilitate learning and experience-sharing across all project components, thereby increasing the capacity of extension services and rural institutions in the long term while promoting decentralized service provision and innovation. iii. Provision of water supply and improved access will contribute to climate resilience, sustainable diversified livelihood strategies, and better management of natural resources. iv. Rehabilitation of fragile areas such as degraded lands, forests, and riverbanks will contribute to ecosystem and ecological restoration, thereby increasing resilience to climate change events. v. Provision of health services to vulnerable communities will contribute to increased resilience against climate-related health problems. vi. Training and awareness-raising on environmental and climate-change issues will contribute to better environmental management for both communities and Karatu District Council staff.

b) Negative Impacts

The following negative environmental and social impacts are likely to occur if the project is implemented without proper safeguards:

- i. Delineation of degraded areas for rehabilitation may shift pressure to adjacent non-degraded areas.
- ii. Inadequate management of new or improved water points at household or community level may lead to stagnant water and an increase in malaria or other water-borne disease cases.
- iii. The presence of a large and diverse spectrum of project beneficiaries may cause conflicts if beneficiary selection and benefit-sharing are not handled transparently and equitably.
- iv. Promotion of exotic tree species in natural forest thickets could negatively affect local biodiversity.
- v. Overall project implementation activities (construction, movement of people and materials, vegetation clearing, etc.) may temporarily disturb natural systems.

Enhancement and Mitigation Measures

While measures will be taken to maximize and enhance the positive impacts of the proposed project, equal attention will be given to minimizing or eliminating the identified negative impacts. The Environmental and Social Management and Monitoring Matrix (Table 5 below) provides detailed mitigation and enhancement measures, responsible parties, timelines, and budgets.

Table 29: Enhancement and mitigation measures

Item	Potential Positive Impact	Enhancement Measure	Responsibility (Implementation)	Site of Implementation	Timeline	Responsibility (Monitoring)	Indicator / Means of Verification
1	Increased alternative livelihood opportunities	Introduce diversified livelihood systems (improved crops, small livestock, modern beekeeping, jewelry/blacksmith, reliable water access) that reduce pressure on natural resources	HKC, Kongwa District Council, Project Management Unit	All project sites associated with beneficiary communities	Throughout the project cycle	Project Management Unit, HKC, Karatu District Council	Number of households adopting new/diversified livelihoods; reported reduction in resource extraction
2	Enhanced availability and access to water sources	Construct/rehabilitate water supply infrastructure to improve livelihood systems and food security	Karatu District Council, HKC, NEMC	All villages involved in the project	Throughout the project cycle	Project Management Unit, District Environmental, Water and Agricultural Officers	Number of functional water points established; volume of water supplied; % of target population with improved access
3	Rehabilitation of degraded environmental systems	Rehabilitate degraded forests, wetlands, riverbanks, and hillsides to restore ecosystems and reduce risk of floods and landslides	Karatu District Council, HKC, NEMC	Designated project rehabilitation sites	Throughout the project cycle	Project Management Unit, District Environmental, Water and Agricultural Officers	Hectares/acres of degraded areas restored and rehabilitated; survival rate of planted trees/vegetation
4	Reduction of deforestation	Implement area closures, community-managed reforestation, and agroforestry initiatives	Karatu District Council, HKC, NEMC	Project sites with forest/thicket restoration	Throughout the project cycle	Project Management Unit	Number of hectares under closure/restoration; number of trees planted and surviving; reported decrease in illegal logging/firewood collection

Table 30: Environmental and social impacts of the different activities under project has been identified as summarized in the table below.

PROJECT COMPONENTS/ACTIVITIES	EXPECTED IMPACTS ON THE EFPRINCIPLES											
	Compliance with the Law	Access and Equity	Marginalized and Vulnerable Groups	Gender Equality and Women Empowerment	Involuntary Resettlement	Protection of Natural Habitats	Conservation of Biological Diversity	Climate Change	Pollution Prevention and Resource Efficiency	Public Health	Physical and Cultural Heritage	Lands and Soil Conservation
Component 1. Enhancing integrated climate change resilient livelihood diversification system in the selected sites in three wards of Baray, Endamaghan and Mang'ola in Karatu District												
Outcome 1. Increased food security, income and resilience to climate change impact through Climate Smart practices in selected wards												

Output1.1. Sustainable bee keeping initiative for food security and increased household income in selected village of the three wards of Baray, Endamaghan and Mang'ola improved												
1.1.1 Training hunters and gatherers on sustainable bee keeping practices	√	X	X	X	N/A	√	√	X	X	√	X	√ X
1.1.2 Provision of at least 1500 modern beehives and related equipment.	√	X	X	X	N/A	√	√	X	X	√	X	√
1.1.3 Building capacity on honey marketing	√	X	X	X	N/A	√	√	X	X	√	X	√ X
1.1.4 Building capacity for communities to establish honey producer's cooperative society	√	X	X	X	N/A	√	√	X	X	√	X	√
Output 1.2 Use alternative source of biomass energy promoted for Datoga (Blacksmith) communities in the three wards of Baray, Endamaghan and Mang'ola												
1.2.1 Training Datoga (blacksmith) communities on the use of sustainable source of energy	√	X	X	X	N/A	X	X	X	X	X	X	X
PROJECT COMPONENTS/ACTIVITIES	EXPECTED IMPACTS ON THE EF PRINCIPLES											

	Compliance with the Law	Access and Equity	Marginalized and Vulnerable Groups	Gender Equality and Women's Empowerment	Involuntary Resettlement	Protection of Natural Habitats	Conservation of Biological Diversity	Climate Change	Pollution Prevention and Resource Efficiency	Public Health	Physical and Cultural Heritage	Lands and Soil Conservation
1.2.2. Training Datoga on how to make energy saver cooking stoves for cooking and forging tools	√	X	X	X	N/A	X	X	X	X	X	X	X
1.2.3. Training Datoga (blacksmith) on making alternative energy products e.g. briquettes	√	X	X	X	N/A	X	X	X	X	X	X	X
1.2.4 Facilitating Datoga (blacksmith) communities to engage into a business venture for selling energy saver cooking stoves and briquettes	√	X	X	X	N/A	X	X	X	X	X	X	X
1.2.5 Supporting Datoga (blacksmith) to establish and operate energy saver community group	√	X	X	X	N/A	X	X	X	X	X	X	X
Output 1.3 Use of local and improved breeds of rabbit and poultry for food security and income generation for selected villages three wards of Baray, Endamaghan and Mang'ola improved												
1.3.1 Training women men and youth on Poultry and rabbit production	√	X	X	X	N/A	X	X	X	X	X	X	X
1.3.2 Construction of simple poultry and rabbit houses	√	X	X	X	N/A	X	X	X	X	X	X	X

1.3.3 Provision of startup capital in form of local pullet, cocks, does and buck to the communities	√	X	X	X	N/A	X	X	X	X	X	X	X	X
1.3.4 Provision of feed, supplements, veterinary drugs and equipment/utensils	√	X	X	X	N/A	X	X	X	X	X	X	X	X
Output 1.4 Production of diversified cultural and nature-based tourism products for Hadzabe (hunters and gatherers) and Datoga (blacksmith) women, men and youth improved.													
1.4.1 Train women and youth on jewelry and leather quality and marketing	√	X	X	X	N/A	X	X	X	X	X	X	X	X
1.4.2 Promote the jewelry and leather business amongst women and youth	√	X	X	X	N/A	X	X	X	X	X	X	X	X
1.4.3 Provide support and capacity for women and youth to form jeweler's and leather makers groups	√	X	X	X	N/A	X	X	X	X	X	X	X	X
1.5 Output Identification and production of suitable traditional and modern crops for enhanced food security and increased household income in selected villages of Baray, Endamaghan and andMang'ola promote													
1.5.1 Training of men, women and youth on production of selected traditional and modern crops	√	X	X	X	N/A	X	X	X	X	X	X	X	X
1.5.2 Establishment of at least 10 acres as demonstration farms (Field Farm School-FFS) across 8 villages within the targeted three wards	√	X	X	X	N/A	X	X	X	X	X	X	X	X
Component2 Enhancing climate resilient rural water infrastructure and supply system in vulnerable Hadzabe (hunters and gatherers) and Datoga (blacksmith) communities at Baray, Mang'ola and EndamaghangWards in Karatu													

Outcome2 Enhanced climate resilient rural water supply system in vulnerable communities of Hadzabe (gathers and hunters) and Datoga (Blacksmith) at Baray and Endamaghang Wards													
Output2.1 At least 10 boreholes drilled in Hadzabe (gathers and hunters) and Datoga(blacksmith) communities at Baray, Mang'ola and Endamaghang Wards in Karatu District for improved water availability													
2.1.1 Conducting hydro geological survey	√	X	X	X	X	√	√	X	X	X	X	X	X
2.1.2 Drill boreholes in drought prone and water scarce villages and install solar driven water pumps at Baray, Mang'ola and Endamaghang Wards	√	X	X	X	X	√	√	X	X	X	X	X	X
Output2.2 Water supply systems constructed in Hadzabe (gathers and hunters) and Datoga (blacksmith) communities at Baray, Mang 'ola and Endamaghang Wards in Karatu District for improved water quality													
2.2.1 Design and Construct water storage tanks, distribution network systems and pump system at Baray, Mang'ola and Endamaghang Wards	√	X	X	X	X	√	√	X	X	X	X	X	X
2.2.2 Construct community water points/ community water Kiosks for network systems	√	X	X	X	X	√	√	X	X	X	X	X	X
Output2.3 Hadzabe (hunters and gathers) and Datoga (blacksmith) facilitated, trained and supported to operate and maintain the water infrastructure.													
2.3.1 Conduct awareness raising meetings with community stakeholders on operation and maintenance of water infrastructure and supply	√	X	X	X	X	√	√	X	X	X	X	X	X

X Output 2.4 Climate resilient behavioral change and water governance for Hadzabe and Datoga communities in the three wards of Baray, Endmagahan and Mang'ola enhanced												
2.4.1 Conduct awareness raising meetings with community stakeholders on behavior change and water governance	√	X	X	X	X	√	√	X	X	X	X	X
PROJECT COMPONENTS/ACTIVITIES	EXPECTED IMPACTS ON THE EF PRINCIPLES											
	Compliance with the Law	Access and Equity	Marginalized and Vulnerable Groups	Gender Equality and Women Empowerment	Involuntary Resettlement	Protection of Natural Habitats	Conservation of Biological Diversity	Climate Change	Pollution Prevention and Resource Efficiency	Public Health	Physical and Cultural Heritage	Lands and Soil Conservation
Component 3. Improving climate change resilience of forests and non- timber products for selected villages of the three wards of Baray, Endamagahan and Mang'ola in Karatu District												
Outcome 3. Improved forests services and functions to sustain climate change resilient livelihoods at selected villages in baray, Endamagahan and Mang'ola wards												
Output 3.1. Adoption of integrated climate smart forest management practiced for selected villages of Baray, Endamagahan and Mang'ola wards promoted.												
3.1.1 Creating awareness and training on integrated forest management	√	X	X	X	X	X	X	X	X	X	X	X
3.1.2. Support the establishment and maintenance	√	X	X	X	X	X	X	X	X	X	X	X

of tree nurseries by communities												
PROJECT COMPONENTS/ACTIVITIES	EXPECTED IMPACTS ON THE EFPRINCIPLES											
	Compliance with the Law	Access and Equity	Marginalized and Vulnerable Groups	Gender Equality and Women's Empowerment	Involuntary/Resettlement	Protection of Natural Habitats	Conservation of Biological Diversity	Climate Change	Pollution Prevention and Resource Efficiency	Public Health	Physical and Cultural Heritage	Lands and Soil Conservation
3.1.3 Tree planting and maintenance	√	X	X	X	X	X	X	X	X	X	X	X
3.1.4 Establishment and building capacity for communities to form and operate tree planting group	√	X	X	X	X	√	√	X	X	X	X	X
Component 4..Promoting climate change resilience of health systems at three wards of Baray, Endamaghan and Mang'ola in Karatu District												
Outcome 4. Health and sanitation infrastructure and services for Hadzabe (hunters and gatherers) and Datoga (blacksmith) in selected villages of the three wards of Baray, Endamaghan and Mang'ola in Karatu District improved												
Output 4.1 Climate Vulnerability assessment for a comprehensive action plan in health sector at Karatu District Council conducted												

Annex 5: USP Comprehensive framework

ENVIRONMENTAL, SOCIAL AND GENDER SCREENING, ASSESSMENT AND APPROVAL FRAMEWORK FOR UNIDENTIFIED SUBPROJECTS (USPs)

Karatu Climate Resilience and Adaptation Project for Hadzabe and Datoga Communities (KARAHADA)

July 2026

LIST OF ACRONYMS

AF	Adaptation Fund
AFB	Adaptation Fund Board
AFB/PPRC	Adaptation Fund Board/Project and Programme Review Committee document reference
CAN Tanzania	Climate Action Network Tanzania
ESMP	Environmental and Social Management Plan
ESP	Environmental and Social Policy
FPIC	Free, Prior and Informed Consent
GBV	Gender-Based Violence
GPS	Global Positioning System
KARAHADA	Karatu Climate Resilience and Adaptation Project for Hadzabe and Datoga Communities
NEMC	National Environment Management Council
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
PPRC	Project and Program Review Committee
SMS	Short Message Service
TAEPO	Tanzania Environmental Protection Organization
USP	Unidentified Subproject
USPs	Unidentified Subprojects

1. Introduction

This framework is tailored to the KARAHADA project context. The proposal currently identifies activities whose exact micro-locations, final engineering details, or site-specific environmental and social settings will only be established during implementation, including boreholes and associated water infrastructure, beehive and apiary locations, restoration sites, rainwater-harvesting structures, climate-smart community health resource centers, and selected small-scale livelihood infrastructure. The framework therefore treats these as partially unidentified subprojects rather than as activities whose nature and location are both unknown. The structure below is intentionally detailed. It is intended to demonstrate that NEMC, as the National Implementing Entity, will exercise effective oversight and that the Executing Entities, the Karatu District Council, the Project Coordination/Management Unit and community structures will apply the Adaptation Fund Environmental and Social Policy, Gender Policy and applicable Tanzanian requirements before any USP is financed or implemented.

2. Purpose, objectives and policy basis

2.1. Purpose of the framework

The purpose of this Environmental, Social and Gender Screening, Assessment and Approval Framework is to establish a mandatory and transparent system for managing the environmental, social and gender risks of all Unidentified Subprojects under the KARAHADA Project. It translates the general commitments contained in the project ESMP, Gender Action Plan and Indigenous Peoples provisions into a practical sequence of actions that must be completed as soon as each USP becomes sufficiently defined during implementation. The framework is not a substitute for site-specific assessment. Rather, it is the mechanism through which site-specific assessment will be undertaken. It ensures that every USP will undergo the same standard of evidence-based risk identification, impact assessment, stakeholder consultation, gender analysis, avoidance, mitigation, management, monitoring and reporting that would have been required had the activity and its location been fully identified at proposal stage. It also ensures that no implementation pressure, procurement timetable or budgetary commitment can override the requirement for prior environmental, social and gender clearance.

The framework has five interrelated objectives. First, it prevents environmental or social harm by screening proposed USPs before funds are committed or works commence. Second, it strengthens project benefits by ensuring that the needs and rights of Hadzabe and Datoga communities, women, youth, persons with disabilities, older persons, mobile households and other vulnerable groups are reflected in site selection, design, benefit sharing and management arrangements. Third, it provides a clear institutional chain of accountability from the community and district level to NEMC as the Implementing Entity. Fourth, it provides a consistent basis for categorizing risk and determining the safeguards instruments required for each USP. Fifth, it creates an auditable record that can be reviewed through the annual Project Performance Report, supervision missions, environmental and social audits, the mid-term review and final evaluation.

2.2. Applicable policy and legal framework

The framework shall be applied in accordance with the Adaptation Fund Environmental and Social Policy, the Adaptation Fund Gender Policy and Action Plan, the Adaptation Fund guidance on projects and programmes containing Unidentified Subprojects, the Adaptation Fund guidance for implementing entities on compliance with the Gender Policy, the project legal agreement, NEMC environmental and social management procedures, and all relevant laws, regulations, standards and administrative requirements of the United Republic of Tanzania.

The national legal and technical requirements to be considered will vary according to the nature and location of each USP. They may include requirements under the Environmental Management Act and related environmental assessment and audit regulations; water resources, water supply and sanitation legislation; village land and land-use planning legislation; occupational health and safety and labour laws; public health requirements; building, engineering and construction standards; forestry, wildlife and biodiversity requirements; cultural heritage provisions; requirements for rural water supply and borehole drilling; and district bylaws. The screening process must identify the laws and permits applicable to each individual USP rather than relying only on a general project-level statement of legal compliance.

Where the requirements of the Adaptation Fund and national law differ, the USP shall comply with both. Where one requirement provides a higher level of environmental, social, gender or human-rights protection, that higher standard shall be applied to the extent permitted by national law and the project agreement. National approvals shall not replace Adaptation Fund safeguards review, and safeguards clearance by NEMC shall not replace permits and approvals required by the competent Tanzanian authorities.

2.3. Core operating principles

Implementation of this framework shall be guided by the following principles:

- a) Prevention and avoidance first: adverse impacts shall be avoided wherever technically and financially feasible. Minimization, mitigation, restoration and compensation are considered only after reasonable avoidance alternatives have been examined.
- b) No works before clearance: no USP-related procurement, site handover, land preparation, drilling, construction, installation, distribution of site-dependent assets or disbursement shall occur until written safeguards clearance has been issued by NEMC.
- c) Proportionality: the depth of assessment, documentation, consultation and monitoring shall be commensurate with the nature, scale, duration, reversibility and significance of the potential impacts and with the vulnerability of affected people and ecosystems.
- d) Evidence-based decision-making: screening conclusions shall be supported by field observations, maps, technical studies, consultation records, sex- and age-disaggregated data, photographs, permits and professional judgement. Unsupported declarations that impacts are low or negligible shall not be accepted.
- e) Meaningful participation: potentially affected people shall receive understandable information early enough to influence site selection, design, mitigation and management arrangements. Consultation shall continue throughout implementation and shall not be treated as a one-off signature exercise.
- f) Gender responsiveness and intersectionality: assessment shall consider differences among women and men and the intersecting effects of age, disability, livelihood, mobility, ethnicity, poverty, literacy, household status and Indigenous identity.
- g) Respect for Indigenous Peoples and customary systems: engagement with Hadzabe and Datoga communities shall use culturally appropriate processes, legitimate representatives, local-language communication and Free, Prior and Informed Consent where their lands, resources, livelihoods, mobility, knowledge or cultural heritage may be affected.
- h) Transparency and accountability: screening decisions, conditions of approval, responsibilities, monitoring results, incidents, grievances and corrective actions shall be recorded and subject to NEMC oversight.
- i) Adaptive management: the ESMP and site-specific plans shall be updated when new information, unanticipated impacts or changes in design arise. Approval is not a one-time immunity from further safeguards action.
- j) Polluter-pays and responsibility for compliance: the entity or contractor responsible for causing or managing an impact shall bear the cost of prevention, mitigation, remediation and corrective action, without transferring those costs to affected communities.

3. Definition, typology and scope of Unidentified Subprojects

3.1. Definition of a USP

For the purposes of KARAHADA, an Unidentified Subproject is a project activity that has not been formulated at the time of proposal submission to the degree necessary to fully identify its environmental and social risks in the specific environmental and social setting where it will be implemented. A USP may be partially unidentified because the type and approximate scale of the activity are known, but the precise site, final design, technical specifications, land arrangement, or beneficiary configuration will only be confirmed during implementation. A routine implementation detail does not automatically make an activity a USP. If the location, design, and affected population are sufficiently known to identify risks, the activity must be assessed as a fully identified activity. Conversely, an activity shall not be accepted merely because it is labelled a USP. The USP approach must be justified by a genuine design dependency, such as the need for hydrogeological surveys, participatory site selection, ecological suitability assessment, culturally appropriate consent, or detailed technical design that cannot reasonably be completed before implementation.

3.2. Permissible USP type for KARAHADA

KARAHADA shall use only partially unidentified USPs within a fixed and approved framework. The nature and objective of the activity must already be known, the activity must fall within an approved component and output, and the geographical scope must be limited to the target wards and villages. What may remain to be confirmed is the precise micro-location, detailed engineering or operational design, site-specific risk profile, final beneficiary configuration or the exact package of mitigation measures required. Fully unidentified activities, for which both the nature of the intervention and the environmental and social setting are unknown, are not permitted under this project. Similarly, a new activity that changes the approved project objective, introduces a materially different technology, expands outside the approved project area, creates a new category of beneficiary or materially increases environmental and social risk shall not be processed through the USP mechanism. Such a change would require formal project-level review and, where applicable, a post-approval change request.

3.3. Indicative USP inventory

The indicative USP inventory is presented below. The list must be finalized at inception and maintained as a living register. Inclusion in the inventory does not constitute automatic approval; each individual USP must pass screening and receive written clearance.

USP group	Indicative activities	Primary site-specific questions
Water infrastructure	Borehole locations, associated pumping and storage infrastructure, community water points, kiosks, distribution extensions and rainwater-harvesting structures where exact sites or designs remain to be confirmed.	Hydrogeological viability, water quality, land access, cumulative abstraction, public health, equitable access, O&M and climate resilience.
Health infrastructure	Climate-smart community health resource centres or retooling works where final locations, designs and site conditions are not yet confirmed.	Land tenure, flood/heat risk, building safety, accessibility, WASH, waste, public safety, cultural acceptability, service scope and maintenance.
Ecosystem restoration	Restoration blocks, assisted natural regeneration areas, community nurseries, erosion-control sites and related small infrastructure whose exact micro-locations are selected during implementation.	Customary resource access, habitat sensitivity, native species, invasive species, fire, grazing, soil erosion, benefit sharing and cultural sites.
Beekeeping	Apiary sites, beehive placement and small honey-processing facilities where the location and management arrangements remain to be confirmed.	Human and livestock safety, pesticide exposure, habitat impacts, customary access, ownership, revenue sharing, women's workloads and market waste.
Livelihood micro-infrastructure	Small poultry/rabbit structures, briquette or improved-stove workspaces, jewellery, leatherwork, blacksmithing or other approved livelihood facilities where precise locations and designs remain unidentified.	Labour and OHS, waste, emissions, fire, animal health, water use, child labour risk, gender control over income, cultural suitability and neighbour nuisance.
Other approved micro-activities	Only activities expressly within the approved outputs and formally accepted by NEMC as partially unidentified.	A written justification, fixed eligibility framework and confirmation that the activity does not alter the approved project scope or risk profile.

3.4. USP Register

The Project Coordination/Management Unit shall establish a central USP Register during the inception phase. Each proposed USP shall receive a unique identifier linked to its component, output, village, ward and responsible Executing Entity. The register shall record the date of submission, description, location, screening status, AF risk

category, required studies, consultation status, FPIC status, national approvals, Committee decision, NEMC clearance date, procurement status, monitoring status, grievances, incidents, corrective actions and closure status. The register shall distinguish between proposed, under-screening, conditionally cleared, cleared, under implementation, suspended, completed and rejected USPs. A rejected or withdrawn USP shall remain in the register with the reason for rejection so that it cannot be resubmitted under a different name without addressing the original concerns. The register shall be reviewed quarterly by NEMC and included as an annex to the safeguards progress report.

4. Eligibility, exclusion and location-screening criteria

4.1. Preliminary eligibility screening

Before undertaking detailed environmental, social and gender screening, the responsible Executing Entity shall demonstrate that the proposed USP is eligible. This preliminary review prevents resources from being spent on an activity that is outside the approved project or inherently incompatible with the project safeguards framework. An eligible USP must satisfy all of the following conditions: it must be directly linked to an approved KARAHADA output and adaptation objective; remain within the approved target area; have a defined scale and technology; provide identifiable climate-resilience benefits; have a credible operation and maintenance arrangement; have sufficient budget for safeguards measures; have legally and socially acceptable land or resource-use arrangements; be supported through meaningful consultation; and be capable of being implemented without Category A impacts. The eligibility review shall also determine whether the activity can reasonably be relocated or redesigned if environmental, social or gender concerns arise. An activity with only one technically possible site shall be subject to heightened scrutiny because the project may have limited ability to apply the avoidance principle. Where no acceptable site or design alternative exists, the activity shall not proceed.

4.2. Mandatory exclusion criteria

The following activities or locations are ineligible for financing under the KARAHADA USP mechanism. The exclusion list is preventive and applies even where an activity could theoretically be mitigated. It reflects the project's Category B risk profile, its focus on vulnerable communities and its limited capacity to manage significant or irreversible impacts.

- a) Any activity assessed as Adaptation Fund Category A because it may generate significant, diverse, widespread, cumulative, irreversible or unprecedented adverse impacts.
- b) Any activity requiring involuntary physical relocation, involuntary acquisition of private land, forced restriction of access to livelihood resources, or economic displacement that cannot be fully avoided.
- c) Any activity affecting critical natural habitat, legally protected areas or areas of exceptional biodiversity value in a manner that would cause conversion, fragmentation or significant degradation.
- d) Any activity that would restrict Hadzabe or Datoga access to customary lands, water sources, hunting or gathering areas, cultural sites, sacred sites, medicinal resources, mobility routes or traditional livelihoods without culturally appropriate agreement and effective avoidance of harm.
- e) Any activity proceeding without FPIC where FPIC is required, or where consent has been obtained through coercion, inadequate information, inappropriate representation or after material commitments have already been made.
- f) Any activity involving forced labor, child labor, discriminatory labor practices, unsafe working conditions that cannot be effectively controlled, or use of community labor without transparent, voluntary and fair arrangements.
- g) Any activity that creates a material risk of gender-based violence, sexual exploitation, abuse or harassment that cannot be reduced to an acceptable level through design, staffing, codes of conduct, referral systems and supervision.
- h) Any activity introducing invasive alien species, environmentally harmful production methods, prohibited chemicals, uncontrolled hazardous waste or unsustainable extraction of biomass, water, forest products or wildlife resources.
- i) Any borehole or water abstraction activity where hydrogeological evidence indicates unsustainable yield, unacceptable water quality, serious cumulative impacts, saline intrusion or likely conflict with existing users.
- j) Any infrastructure site located in an active floodway, unstable slope, wetland, erosion-prone area, contaminated land or other high-hazard location where safe and climate-resilient design cannot be demonstrated.
- k) Any activity that would damage known cultural heritage or where a culturally significant location cannot be avoided.

- l) Any new activity, geographical expansion or technology that is not included in the approved project design and would amount to a substantive change in scope.

4.3. Sensitive-location screening

Even where a location is not automatically excluded, the screening team shall identify sensitive receptors within the USP area of influence. These may include homes, schools, health facilities, water points, grazing areas, wildlife movement routes, forest patches, wetlands, steep slopes, erosion gullies, cultural sites, areas used for gathering wild foods or medicinal plants, routes used by women and children, and areas occupied seasonally by mobile households. The area of influence must include not only the footprint of the proposed activity but also access roads, spoil or waste-disposal areas, water catchments, downstream users, construction camps, material sources and any area likely to experience indirect or cumulative effects.

Sensitive-location screening shall be supported by a site walk, community mapping and, where relevant, technical mapping or specialist assessment. The screening team shall record reasonable alternatives considered and explain why the preferred site provides the best balance of technical feasibility, climate resilience, environmental protection, social acceptance, gender safety and cost effectiveness.

5. Institutional arrangements, roles and accountability

5.1. NEMC as National Implementing Entity

NEMC retains ultimate accountability to the Adaptation Fund for environmental, social and gender compliance of the project, including all USPs. This accountability cannot be delegated to the Executing Entities, contractors, the District Council or community committees. NEMC shall therefore establish the safeguards requirements, verify institutional capacity, review and clear USP documentation, supervise implementation, require corrective action, suspend activities where necessary, and ensure that safeguards performance is accurately reported to the Adaptation Fund.

NEMC shall designate an authorized Environmental and Social Safeguards Officer or unit to chair the USP review process and issue written safeguards clearance. The officer shall be independent from personnel whose primary responsibility is project delivery or disbursement. NEMC shall also ensure that its supervision plan includes risk-based site visits, review of the USP Register, verification of consultations and FPIC, review of gender-disaggregated monitoring data, incident oversight and annual audit follow-up.

NEMC may seek external specialist advice where the project team lacks the expertise required to assess hydrogeology, biodiversity, Indigenous Peoples, gender-based violence, structural safety, occupational health and safety, cultural heritage or cumulative impacts. The absence of in-house expertise shall not be used as a basis for approving an inadequately assessed USP.

5.2. Project Coordination/Management Unit

The Project Coordination/Management Unit shall manage the day-to-day application of the framework. It shall maintain the USP Register and complete safeguards files; coordinate screening missions and technical studies; ensure that consultations are properly organized and documented; verify that mitigation costs are included in budgets and bills of quantities; incorporate safeguards clauses into procurement documents and contracts; monitor compliance; receive incident and grievance reports; and prepare quarterly and annual safeguards reports for NEMC. The Unit shall include or have direct access to an Environmental and Social Safeguards Specialist and a Gender and Social Inclusion Specialist. These specialists shall have authority to recommend suspension of procurement or field activities where safeguards requirements have not been met. Their performance objectives shall include quality and timeliness of screening, not merely the number of USPs approved.

5.3. Executing Entities

Karatu District Council, TAEPO, CAN Tanzania and any other approved Executing Entity shall be responsible for preparing complete USP submissions and implementing the safeguards measures applicable to the activities they execute. They shall not treat safeguards as a separate compliance exercise undertaken after technical design. The environmental, social and gender findings must influence site selection, technical design, beneficiary arrangements, work schedules, community governance, procurement and operational planning. Each Executing Entity shall designate

a safeguards focal person with sufficient authority and time. The focal person shall coordinate with the Project Unit specialists, ensure field staff and contractors understand their obligations, maintain local records, and immediately report serious incidents or changes in design. Executing Entities shall be subject to NEMC supervision and may be required to correct deficiencies at their own cost where non-compliance results from failure to follow approved procedures.

5.4. Karatu District technical departments

The District Council shall provide sector-specific technical review through its environment, water, health, works, community development, social welfare, land, forestry, agriculture, livestock and planning functions. District participation is essential because these departments understand local conditions, administer relevant standards and permits, and will often carry responsibility for long-term operation and maintenance. However, district endorsement does not replace NEMC safeguards clearance. District officers shall verify the accuracy of site information, review compliance with district plans and bylaws, confirm land and resource-use arrangements, support consultation and community validation, inspect works, monitor environmental and social indicators and participate in corrective-action follow-up. The District Community Development Officer and Social Welfare Officer shall support gender and vulnerability analysis, accessible participation, GBV-sensitive referral and inclusion of persons with disabilities.

5.5. USP Safeguards and Technical Review Committee

A USP Safeguards and Technical Review Committee shall be established as the formal multidisciplinary body that reviews screening findings and recommends a decision. The Committee shall prevent a situation in which a single technical officer both prepares and approves a USP. It shall also ensure that environmental, social, gender, cultural and technical considerations are reviewed together rather than through disconnected approvals. The standing membership shall include: a NEMC safeguards officer as Chairperson; the Project Environmental and Social Safeguards Specialist as Secretary; the Gender and Social Inclusion Specialist; the Karatu District Environmental Management Officer; the District Community Development or Social Welfare Officer; and the relevant sector officer. Additional members shall be invited in accordance with the USP, including the District Water Engineer or hydrogeologist, Works Engineer, Health Officer, Forestry Officer, Land Officer, Agriculture Officer, Livestock Officer, occupational health and safety specialist, public health specialist, biodiversity specialist, or cultural heritage specialist.

Where Hadzabe or Datoga communities may be affected, the review process shall include an Indigenous Peoples/FPIC specialist or focal person and culturally legitimate community representatives. Community representatives shall contribute knowledge and validate whether engagement and consent processes were culturally appropriate. They shall not be expected to provide technical certification outside their competence, and their participation shall not transfer safeguards liability from NEMC or the technical agencies to the community.

The Committee shall have written terms of reference. A quorum shall require the NEMC Chairperson or authorized delegate, the environmental and social safeguards specialist, the gender/community-development representative and the relevant sector technical officer. Decisions shall be recorded in signed minutes and shall identify any dissenting technical opinion. Members shall declare conflicts of interest and recuse themselves from decisions where they, their relatives, their organization or their beneficiary group could receive a direct financial advantage. The Committee may recommend: approval; approval with clearly stated conditions; further assessment; redesign or relocation; deferral pending consultation, FPIC or permits; or rejection. Only NEMC may issue final safeguards clearance. The Project Steering Committee may review implementation and policy matters but shall not overturn a NEMC safeguards rejection on political, budgetary or scheduling grounds.

5.6. Community and village institutions

Village Assemblies, Village Councils, Water User Associations, Village Natural Resource Committees, women's groups, youth groups, persons-with-disabilities representatives and culturally legitimate Hadzabe and Datoga structures shall participate in site identification, consultation, validation of land and access arrangements, development of equitable-use rules, monitoring and grievance resolution. Their role is central to legitimacy and sustainability, but community approval alone is not evidence that environmental and social risks are acceptable.

Community structures shall receive training on their responsibilities, conflicts of interest, transparent beneficiary selection, protection of vulnerable groups, record keeping, grievance handling and monitoring. The project shall avoid relying only on formal village leaders where such structures do not adequately represent women, mobile households or Indigenous governance systems.

6. Detailed USP screening, assessment and approval procedure

The screening and approval procedure shall follow the sequence below. Steps may be undertaken in parallel where appropriate, but no step may be omitted, and no final approval may be issued until all required evidence is complete.

6.1. Step 1: Initiation and USP concept note

The responsible Executing Entity shall prepare a USP concept note using the prescribed form. The concept note shall identify the approved component and output, purpose, climate-adaptation rationale, proposed activity, approximate scale, potential sites, expected beneficiaries, indicative budget, implementation period and responsible entity. It shall explain why the activity remains partially unidentified and why that uncertainty could not reasonably have been resolved during proposal preparation. The note shall also confirm that the activity is not a fully unidentified intervention and is not a new project activity disguised as a USP.

6.2. Step 2: Preliminary eligibility and exclusion review

The Project Safeguards Specialist and relevant sector officer shall review the concept against the approved project scope, eligibility conditions and exclusion list. Activities that are outside scope, fully unidentified or likely to be Category A shall be rejected or returned for redesign before additional project resources are spent. The outcome shall be recorded in the USP Register.

6.3. Step 3: Preparation of the site and technical dossier

For an eligible concept, the Executing Entity shall prepare a site and technical dossier. It shall include GPS coordinates, maps, photographs, land and resource-use information, ownership or voluntary allocation documents, preliminary design, dimensions, technology, materials, access routes, construction methods, resource requirements, waste streams, workforce requirements, implementation schedule, operation and maintenance arrangements, alternative sites considered and relevant technical studies. The dossier shall describe the area of influence rather than only the physical footprint.

6.4. Step 4: Stakeholder identification and engagement plan

Before consultation, the social and gender team shall identify people who may benefit, bear costs, lose access, experience increased workload, face safety risks or be excluded. Stakeholder identification shall include women and men of different ages, persons with disabilities, poor and remote households, mobile Hadzabe households, Datoga groups, land and resource users, neighbouring communities, service providers, customary leaders and workers. A short engagement plan shall specify methods, language, timing, venues, separate meetings and measures for low-literacy or marginalised participants.

6.5. Step 5: Participatory site selection and alternatives analysis

Potential sites and designs shall be discussed before a preferred option is fixed. The process shall compare technical feasibility, climate resilience, land and resource implications, environmental sensitivity, safety, accessibility, gender impacts, cultural acceptability, costs and operation and maintenance requirements. The preferred option shall be justified in writing. Where communities identify a less harmful feasible alternative, the project shall explain why it is accepted or, if rejected, provide a clear technical reason.

6.6. Step 6: Environmental, social and gender screening

A multidisciplinary field team shall complete the revised Annex 5 form. Screening shall address all fifteen Adaptation Fund ESP principles, direct and indirect impacts, cumulative effects, climate risks, gender and social inclusion, Indigenous Peoples, labour and occupational safety, public health, cultural heritage, land and resource use,

biodiversity and pollution. Each conclusion shall be supported by evidence and professional reasoning. A simple “yes/no” checklist without narrative justification is insufficient.

6.7. Step 7: Determination of required technical studies and permits

Based on screening, the Committee Secretariat shall specify additional studies, permits and clearances. These may include hydrogeological investigation, water-quality analysis, biodiversity or habitat survey, structural or drainage assessment, occupational health and safety plan, public-health assessment, land verification, climate-risk assessment, gender and vulnerability assessment, cumulative-impact assessment, or environmental assessment under national law. The USP shall not be categorised finally until the evidence needed to understand significant uncertainties is available.

6.8. Step 8: Risk categorisation

The screening team shall propose an Adaptation Fund Category A, B or C classification. The classification shall reflect the significance of the potential adverse impacts, not the value or physical size of the activity alone. The Committee shall review and confirm or revise the proposed category. Category A USPs are ineligible. Category B USPs require proportionate assessment and a site-specific ESMP. Category C USPs require documented good-practice measures and monitoring.

6.9. Step 9: Preparation of safeguards instruments

The Executing Entity shall prepare the safeguards instruments triggered by the screening. The site-specific ESMP shall translate findings into actions with indicators, responsibilities, timeframes and budgets. Where applicable, additional plans shall address gender, Indigenous Peoples and FPIC, stakeholder engagement, labour, occupational health and safety, community health and safety, waste and pollution, biodiversity, cultural heritage, emergency preparedness, water quality or GBV/sexual exploitation and abuse and sexual harassment risks.

6.10. Step 10: Disclosure, consultation and consent on findings

The draft screening findings, risk category, proposed design and management measures shall be disclosed in accessible language and format. Affected people shall have a genuine opportunity to comment before final approval. For Category B USPs, the site-specific ESMP shall be discussed with affected groups. Where FPIC is required, consent shall relate to the final information and not merely an earlier concept. Changes introduced after consent shall be disclosed and may require renewed consent.

6.11. Step 11: Committee review and recommendation

The Technical Review Committee shall examine the completeness and credibility of the dossier, the application of all ESP principles, the gender assessment, consultation quality, FPIC evidence, alternatives, technical feasibility, category, mitigation measures, monitoring arrangements, budget, permits and implementation capacity. The Committee shall issue a signed recommendation and conditions. Conditions shall be specific, measurable and assigned to a responsible entity; vague conditions such as “ensure compliance” are not acceptable.

6.12. Step 12: NEMC written safeguards clearance

NEMC shall issue a written clearance only after all required documents, permits, consultations, budgets and contractual safeguards provisions are complete. The clearance shall identify the USP category, approved site and design, mandatory plans, conditions, monitoring frequency, reporting obligations and circumstances requiring re-screening. A copy shall be kept in the USP file and provided to the procurement and finance functions.

6.13. Step 13: Procurement and pre-mobilization verification

Environmental, social, gender, labor and safety obligations shall be incorporated into bidding documents, contracts, bills of quantities and supervision arrangements. Before mobilization, the Project Unit shall verify contractor licenses, staff, site-specific plans, codes of conduct, insurance, PPE, waste arrangements, community information, grievance channels and emergency contacts. A contractor may not start work merely because a commercial contract has been signed.

6.14. Step 14: Implementation monitoring and adaptive management

The Project Unit and District officers shall monitor compliance according to risk. Monitoring shall include community feedback and gender-disaggregated outcomes, not only physical mitigation. Any material design or location change, newly discovered sensitive receptor, serious incident, repeated complaint or ineffective mitigation shall trigger review and, where necessary, re-screening and amendment of the ESMP.

6.15. Step 15: Completion, handover and safeguards closure

Before handover, the project shall verify completion of mitigation, restoration of temporary work areas, disposal of waste, closure of grievances, water or structural safety testing, functionality of management committees, accessibility, O&M financing and transfer of records. A USP closure form shall identify any continuing monitoring obligations and residual risks. Completion of construction alone does not constitute closure of safeguards.

7. Screening against the fifteen Adaptation Fund Environmental and Social Policy principles

Each USP shall be screened against every ESP principle. A principle may be marked as requiring no further assessment only where the conclusion is supported by evidence showing that the principle is not relevant or that risk is negligible and fully addressed by design. Where a risk is identified, the screening shall describe the pathway from the activity to the possible impact, the people or environmental receptor affected, the significance of the impact, the additional assessment required and the proposed avoidance or management response.

7.1. Compliance with the law

The screening shall identify all laws, regulations, permits, technical standards, district bylaws and administrative approvals applicable to the specific USP. It shall verify land legality, environmental assessment requirements, water and drilling permits, construction approvals, labour and OHS obligations, public-health requirements, waste-disposal rules and sector standards. The legal-compliance matrix shall identify the responsible authority, document required, timing and evidence of compliance. A general statement that the project will follow national law is insufficient.

7.2. Access and equity

The assessment shall examine who can physically, economically and socially access the infrastructure, services, training, livelihood assets or natural resources created by the USP. It shall identify possible elite capture, remote households, user fees, distance, opening hours, disability barriers, language barriers, seasonal mobility and rules that may favor settled or influential groups. Mitigation may include transparent eligibility criteria, public beneficiary lists subject to privacy protection, equitable schedules, affordable tariffs, accessible design, representation requirements and monitoring of benefit distribution.

7.3. Marginalized and vulnerable groups

The assessment shall identify groups whose vulnerability could make them more exposed to harm or less able to capture benefits. In KARAHADA, this includes Hadzabe and Datoga communities, women-headed households, poor households, youth, older persons, persons with disabilities, mobile households and people with low literacy. The analysis shall distinguish between vulnerability to climate change and vulnerability created or intensified by project design. Measures shall be tailored rather than assuming that one general village consultation represents all groups.

7.4. Human rights

The USP shall respect dignity, non-discrimination, participation, information, privacy, cultural rights, livelihood rights, access to remedy and freedom from coercion. The screening shall examine whether participation is genuinely voluntary, whether refusal would lead to loss of unrelated benefits, whether personal data are protected, and whether complaints can be made without retaliation. Any restriction on land or resource use must be lawful, necessary, proportionate, consulted and consistent with the project exclusion criteria.

7.5. Gender equality and women's empowerment

The assessment shall identify gender-differentiated needs, risks, workloads, safety concerns, access to assets, control over income, decision-making power, time use and barriers to participation. It shall also identify opportunities for

women's leadership and economic empowerment. Mitigation shall be linked to measurable targets, budgets and responsible persons. Counting women in attendance is not sufficient where women do not influence decisions or control benefits.

7.6. Core labor rights

The assessment shall identify the type of labor, including contracted workers, community labor, artisans and volunteers. It shall address child labor, forced labor, discrimination, wages, working hours, freedom of association, grievance channels, PPE, training, sanitation, accommodation, transport and emergency response. Community contribution must be voluntary, transparent and documented. Children shall not participate in hazardous work or be engaged in ways that interfere with education.

7.7. Indigenous Peoples

The assessment shall determine whether a USP may affect Hadzabe or Datoga lands, resources, mobility, cultural practices, knowledge, institutions or livelihoods. Engagement shall use culturally appropriate representatives and communication. FPIC shall be obtained before activities affecting their rights or resources proceed. The assessment shall consider cumulative and indirect effects, such as increased outsider access, changes in land use, restrictions around restoration areas or pressure to adopt unfamiliar livelihoods.

7.8. Involuntary resettlement

The project shall avoid involuntary physical and economic displacement. Screening shall verify land ownership, occupation, seasonal use, grazing, cultivation, gathering, access routes and informal uses. Voluntary land donation or allocation shall be free from coercion, based on full information, documented and shown not to cause significant livelihood loss. Where avoidance is not possible, the USP is ineligible under this project framework.

7.9. Protection of natural habitats

Screening shall determine whether the site or area of influence includes natural woodland, riparian areas, wetlands, wildlife habitat, nesting areas, migration routes or other sensitive ecosystems. The project shall avoid conversion or degradation, use existing disturbed sites where feasible and apply buffers and seasonal restrictions. Restoration activities themselves require screening because poorly selected sites or methods may disturb natural regeneration or customary access.

7.10. Conservation of biological diversity

The assessment shall consider impacts on species, genetic diversity, ecological connectivity and ecosystem functions. Only appropriate native or locally suitable species shall be used for restoration. The project shall avoid invasive alien species and shall assess disease or genetic risks associated with livestock and planting material. Biodiversity monitoring shall be proportionate to risk and may include survival, species composition, habitat condition or evidence of invasive spread.

7.11. Climate change

Each USP shall be screened both for its contribution to climate resilience and for its exposure to future climate hazards. Infrastructure shall be designed for heat, drought, intense rainfall, flooding, erosion and water scarcity over its expected life. The assessment shall avoid maladaptation, such as unsustainable groundwater abstraction, infrastructure that locks communities into high operating costs, or livelihood activities that increase pressure on climate-sensitive ecosystems.

7.12. Pollution prevention and resource efficiency

The assessment shall identify waste, dust, noise, wastewater, drill cuttings, animal waste, fuel and oil, smoke, chemicals, packaging, construction debris and hazardous materials. It shall consider efficient use of water, energy, biomass and construction materials. Site-specific plans shall define storage, handling, reuse, recycling, transport and disposal. Open dumping, burning of hazardous waste and discharge to water bodies are prohibited.

7.13. Public health

The screening shall assess water quality, sanitation, vector breeding, traffic, dust, noise, communicable diseases, food safety, animal diseases, access safety, emergency response, and risks to children and other users. Health resource centers must have a clearly defined service scope and safe referral arrangements. Boreholes shall not be commissioned before satisfactory water-quality results and sanitary protection measures are in place.

7.14. Physical and cultural heritage

The screening shall cover known archaeological, historical, sacred and culturally important sites as well as intangible heritage, customary practices and traditional knowledge. Hadzabe and Datoga cultural mapping shall inform site selection. A chance-find procedure shall apply to excavation and construction. Work shall stop when a possible heritage item or site is encountered until competent authorities and community representatives provide direction.

7.15. Lands and soil conservation

The assessment shall consider erosion, compaction, slope stability, loss of topsoil, drainage, contamination, land degradation and restoration of disturbed areas. Design measures may include contouring, drainage, slope stabilization, topsoil storage, revegetation and dry-season scheduling. Material extraction shall use authorized sources, and temporary areas shall be restored after works.

8. Detailed gender equality and social inclusion assessment

8.1. Purpose and approach

Gender assessment is an integral part of USP safeguards review and shall not be treated as an optional annex or as a repetition of the project-level Gender Action Plan. Because the final location, user group and operational arrangements of a USP may not be known at proposal stage, the project-level gender analysis must be validated and, where necessary, updated for each USP. The assessment shall be proportionate but sufficiently detailed to identify who performs which tasks, who controls resources and income, who participates in decisions, who is exposed to risk, and who may be excluded. The analysis shall use an intersectional approach. Women are not a homogeneous category, and neither are men, youth or Indigenous Peoples. The assessment shall consider age, disability, household status, poverty, literacy, mobility, livelihood, ethnic identity, location and social power. It shall also examine intra-household and community dynamics, including whether a benefit registered in the name of a household or group is actually controlled by women or vulnerable members.

8.2. Minimum gender and inclusion questions

- Ø Who currently uses, manages, owns or depends on the land, water, forest resource, service or livelihood system affected by the USP?
- Ø How are tasks and unpaid workloads divided among women, men, girls and boys, and how might the USP increase or reduce those burdens?
- Ø Who controls household and group decisions, productive assets, income, savings, market relationships and user-fee revenue?
- Ø What barriers may prevent women, youth, persons with disabilities, mobile households or low-literacy participants from attending consultations, joining committees, using infrastructure or receiving benefits?
- Ø Does the location create different safety risks for women, children, older persons or persons with disabilities, including travel at night, isolated routes, poor lighting or unsafe sanitation?
- Ø Could construction, workforce influx, cash transfers, beneficiary selection or new market activity increase risks of GBV, sexual exploitation, abuse, harassment, household conflict or economic coercion?
- Ø Are consultation methods and timing compatible with care responsibilities, seasonal mobility and cultural norms?
- Ø What design features are required for accessibility, privacy, menstrual hygiene, maternal needs, childcare or culturally appropriate use?
- Ø What representation and leadership targets are appropriate for management committees and producer groups?

- Ø What indicators will demonstrate not only participation but equitable access, decision influence, control over benefits and reduction of burdens?

8.3. Gender-responsive measures and indicators

The assessment shall produce concrete measures linked to the project Gender Action Plan. Depending on the USP, measures may include separate consultations; minimum participation and leadership targets; gender-balanced management committees; transparent beneficiary criteria; joint or women-controlled asset ownership; safe and accessible locations; lighting and privacy measures; childcare or timing arrangements; adapted communication for low-literacy participants; disability-accessible design; GBV-sensitive codes of conduct; confidential referral pathways; equal pay for equal work; sex-disaggregated monitoring; and corrective action where benefits become concentrated among men or influential households. Indicators shall go beyond numbers trained. Examples include the percentage of women who report meaningful influence over site selection; percentage of management positions held by women; percentage of livelihood assets controlled by women; average change in time spent collecting water or fuel; percentage of women reporting safe access; benefit distribution by sex, age, disability and community group; number and resolution of exclusion complaints; women's share of enterprise income; and percentage of corrective actions completed where gender gaps are identified.

8.4. GBV, sexual exploitation, abuse and harassment

All construction, drilling, livelihood and community-service USPs shall be screened for risks of gender-based violence and sexual exploitation, abuse and harassment. Risk factors may include workers entering small communities, unequal control over employment or benefits, isolated work sites, transport of workers, exchange of benefits for sexual favours, harassment within groups, unsafe complaint channels or household tension resulting from changes in income and control over assets.

Where risk is identified, the site-specific plan shall include prevention and response measures. These may include worker and staff codes of conduct, induction and refresher training, community awareness, prohibition of sexual exploitation and transactional demands, confidential and survivor-centred complaint channels, mapping and verification of referral services, restrictions on worker interaction with children, sanctions for misconduct and procedures for reporting serious incidents to NEMC. Monitoring reports shall protect confidentiality and shall not disclose survivor-identifying information.

8. Stakeholder engagement, disclosure and Free, Prior and Informed Consent

8.1 Meaningful stakeholder engagement

Engagement shall begin before the project commits to a site or design. Information shall be provided in Kiswahili and, where necessary, relevant local languages using oral, visual and participatory methods. Meetings shall be held at accessible locations and times. Separate sessions shall be organised where women, youth, persons with disabilities, mobile households or Indigenous participants may not speak freely in a general village meeting.

Consultation records shall identify the information disclosed, method, date, venue, participant categories, issues raised, project response and changes made. Attendance sheets alone do not demonstrate meaningful consultation. The safeguards file shall include meeting minutes, photographs where consent is provided, maps produced through participatory exercises, questions raised, unresolved concerns and evidence that results were communicated back to participants.

8.2 Free, Prior and Informed Consent

FPIC shall be applied where a USP may affect Hadzabe or Datoga lands, territories, natural resources, mobility, livelihoods, cultural heritage, traditional knowledge or community institutions. "Free" means consent is obtained without coercion, intimidation, manipulation or pressure linked to access to unrelated project benefits. "Prior" means engagement and consent occur before site approval, procurement, construction or irreversible commitment. "Informed" means communities receive understandable information about the nature, scale, duration, location, benefits, risks, alternatives, mitigation, grievance channels and right to withhold consent. "Consent" means a

collective decision reached through culturally legitimate processes, not merely signatures obtained from selected individuals.

The project shall identify legitimate decision-making structures with the communities themselves. Formal village authorities may participate, but they shall not replace Hadzabe or Datoga customary structures where those structures are relevant. The process shall provide adequate time for internal deliberation and shall document the decision in a culturally appropriate form. Consent is an ongoing process. Material changes to the activity, location, access rules or impacts require renewed engagement and may require renewed consent.

8.3 Disclosure of screening and management documents

The project shall disclose the screening findings, category, required studies, draft site-specific ESMP and grievance channels before final approval. Disclosure shall be proportionate to the complexity of the USP but sufficient for affected people to understand how risks will be managed. Final approved management measures and contact details shall be made available at village offices, relevant infrastructure sites or other accessible locations. Sensitive personal information, culturally restricted knowledge and confidential GBV information shall not be publicly disclosed.

9. Environmental and social risk categorization and decision rules

9.1. Category C

A USP may be classified Category C where no adverse environmental or social impacts are anticipated, or where potential effects are negligible, temporary and fully addressed through standard good practice. Category C is not an exemption from documentation. The screening form must explain why each relevant ESP principle does not pose a risk, identify applicable legal requirements, describe standard measures, and specify monitoring. If implementation reveals impacts not anticipated during screening, the USP shall be re-screened and may be reclassified.

9.2. Category B

A USP shall be classified Category B where potential adverse impacts are limited in number, site-specific, relatively small in scale, reversible and capable of being avoided or managed through readily available measures. Most KARAHADA infrastructure USPs are expected to fall within this category, but the classification must be based on site-specific evidence. Category B requires a proportionate environmental and social assessment and a site-specific ESMP before approval. The assessment may be concise for simple activities, but it must address every identified risk and demonstrate that residual impacts will be acceptable.

9.3. Category A and mandatory response

A proposed USP shall be classified Category A where it may cause significant, diverse, widespread, cumulative, irreversible or unprecedented adverse environmental or social impacts, or where impacts affect highly sensitive ecosystems or vulnerable groups and cannot be confidently managed within the project's resources and institutional capacity. The determination shall consider the magnitude and probability of impact, duration, reversibility, geographic extent, cumulative effects, sensitivity of the location, number and vulnerability of affected people, uncertainty and institutional capacity. Category A USPs are not eligible for financing under KARAHADA. The response shall be avoidance, relocation, reduction in scale, change in technology or complete rejection. A redesigned proposal must be screened again from the beginning. No mitigation plan may be used merely to convert a Category A finding into approval where the underlying significant impact remains. No procurement, disbursement or physical activity shall proceed while a Category A classification remains. Where the project considers a Category A activity indispensable, it shall be removed from the ordinary USP process and referred to NEMC for project-level review. This would require full assessment, comprehensive alternatives analysis, national approvals, extensive consultations, sufficient safeguards financing and consultation with the Adaptation Fund regarding implications for the approved project. Such an exceptional process is outside the routine authority of the Technical Review Committee.

9.4. Risk-rating support tool

The project may use a likelihood-and-consequence matrix to support professional judgment. However, numerical scoring shall not replace the AF category definitions or allow significant risks to be averaged out by low scores in

unrelated areas. A single severe impact on an Indigenous community, critical habitat, public safety or cultural site may determine the category even where other risks are low.

Decision	Minimum requirement	Approval consequence
Category C	Completed screening, legal compliance, consultation evidence, standard good-practice measures and monitoring.	NEMC may clear with standard conditions. Re-screen if design or site changes.
Category B	Detailed screening, proportionate impact assessment, site-specific ESMP, gender measures, consultation/FPIC, permits, budget and monitoring plan.	NEMC may clear after all instruments and conditions are complete.
Category A	Significant or potentially irreversible impacts identified.	Ineligible under the USP mechanism. Reject, relocate or redesign and re-screen.
Insufficient information	Material uncertainty prevents credible categorization.	No clearance. Complete studies, consultation or design before resubmission.
Outside project scope	Activity is not within approved outputs, geography or technology framework.	Reject and refer for formal project change review if still proposed.

10. Safeguards instruments and management requirements

10.1. Site-specific Environmental and Social Management Plan

Every Category B USP shall have a site-specific ESMP. The plan shall be operational rather than descriptive. For each impact it shall identify the avoidance, mitigation or enhancement measure; specific location; implementation stage; responsible party; supervision authority; indicator; baseline or reference condition where relevant; target; monitoring method and frequency; cost; evidence required; corrective-action trigger and reporting line. Measures required from contractors shall be included in the bill of quantities and contract, not left as unfunded commitments. The plan shall distinguish between pre-construction, construction, operation and closure requirements. It shall address residual impacts and explain why they are acceptable. It shall include a change-management procedure requiring re-screening if the site, footprint, technology, source of materials, workforce arrangement, beneficiary arrangement or resource use changes materially.

10.2. Additional instruments

Depending on the screening findings, the following instruments may be required separately or as annexes to the site-specific ESMP:

- Gender Action Plan addendum with site-specific targets, budget and indicators;
- Indigenous Peoples and FPIC implementation plan or record;
- Stakeholder Engagement and Disclosure Plan;
- Labour Management Procedures and Workers' Code of Conduct;
- Occupational Health and Safety Plan;
- Community Health, Safety and Security Plan;
- Waste, pollution and hazardous-materials management plan;

- h) Biodiversity, habitat or restoration management plan;
- i) Cultural-heritage and chance-find procedure;
- j) Emergency preparedness and response plan;
- k) Water-quality, source-protection and monitoring plan;
- l) Groundwater abstraction and cumulative-use assessment;
- m) GBV and sexual exploitation, abuse and harassment prevention and referral protocol;
- n) Traffic and access management plan;
- o) Livestock disease, animal-waste and biosecurity plan;
- p) Any environmental assessment or permit required by national law.

10.3. Mitigation hierarchy and residual risk

The mitigation hierarchy shall be documented. The project shall first avoid the impact through site, scale, timing or design changes. Where avoidance is not possible, it shall minimize the intensity, duration or extent. Remaining impacts shall be restored or remedied. Compensation or benefit replacement shall be considered only for residual impacts that cannot be otherwise addressed and shall not be used to justify impacts prohibited under the exclusion criteria. The ESMP shall identify residual risk after mitigation and the evidence supporting its acceptability.

11. Sector-specific screening and assessment requirements

11.1 Boreholes and water-supply infrastructure

Borehole and water-supply USPs require a combined technical, environmental, social, public-health and gender review. The technical dossier shall include hydrogeological and geophysical investigations, expected yield, pumping-test results where available, water-demand calculations, abstraction sustainability, seasonal variability, potential interaction with nearby sources, climate projections relevant to recharge, and the proposed pumping, storage and distribution system. Screening shall identify existing water users, customary access, livestock use, downstream or neighbouring users and potential cumulative pressure where several boreholes are planned.

Water quality shall be tested for relevant chemical and bacteriological parameters before commissioning and at defined intervals during operation. The design shall include sanitary protection, drainage, safe livestock arrangements, prevention of stagnant water, accessibility for persons with disabilities, safe waiting areas and measures to reduce risks to women and children. Consultation shall address location, user fees, operating hours, priority during scarcity, maintenance, representation in Water User Associations and grievance arrangements. The site-specific ESMP shall cover drilling waste, fuel and oil, noise, dust, worker safety, traffic, community safety, erosion and restoration of disturbed areas.

11.2 Climate-smart community health resource centres

Health resource centres shall undergo land, engineering, public-health, accessibility, cultural and service-scope assessment. The project shall confirm voluntary and uncontested land availability, absence of physical or economic displacement and continued access to surrounding resources. Site selection shall consider flood risk, drainage, heat exposure, wind, erosion, safe access, proximity to communities, referral facilities, water and sanitation, waste management, electricity or energy needs and long-term maintenance.

The design shall provide climate-resilient materials and ventilation, safe WASH facilities, privacy, disability access, lighting and appropriate spaces for the intended services. The centre shall not be presented as a licensed health facility unless it meets national licensing and staffing requirements. The scope of first aid, information, referral and community activities shall be clearly defined. Screening shall address medicine or first-aid storage, infection prevention, child and maternal safety, data privacy, emergency communication and safe management of any healthcare-related waste.

11.3 Ecosystem restoration and tree nurseries

Restoration USPs require ecological and social baseline information. The project shall map existing vegetation, land use, customary gathering, grazing, fire use, wildlife movement, culturally significant sites and causes of degradation. Site selection shall avoid converting intact habitat under the label of restoration. Restoration objectives, methods,

species, planting density, assisted natural regeneration measures, fire management, grazing controls, maintenance and survival targets shall be defined.

Only native or ecologically suitable non-invasive species shall be used. The project shall assess whether protection measures could restrict community access to food, medicines, grazing or cultural resources. Management rules and benefit-sharing arrangements shall be developed with affected users, including women and mobile households. Monitoring shall include survival, habitat condition, invasive species, erosion, fire, community compliance and equitable access to benefits.

11.4 Beekeeping and apiary sites

Apiary screening shall consider distance from homes, schools, paths, livestock routes, water points and high-use community areas; availability of forage and water; exposure to pesticides; fire risk; wildlife interactions; access rights; and proximity to sensitive habitats. The management plan shall include safe hive placement, protective equipment, training, emergency response for stings, harvesting practices, storage, waste management and arrangements for maintenance and revenue sharing.

The gender assessment shall examine whether women can safely access the site and equipment, whether protective gear is appropriate, how labour and income are shared, and whether ownership arrangements provide women with genuine control over benefits. Where sites are on communal or culturally important land, FPIC and customary-access considerations shall be documented.

11.5 Poultry, rabbit and small livestock facilities

Screening shall address location, odour, noise, animal waste, drainage, water demand, feed availability, disease transmission, veterinary support, carcass disposal, heat stress, predator control, neighbour impacts and worker safety. Housing shall be climate-resilient and easy to clean. Biosecurity, vaccination and animal-welfare arrangements shall be included. The project shall avoid placing facilities where they contaminate water sources or create nuisance to homes, schools or health services.

The social and gender assessment shall consider control over livestock and income, distribution of daily care work, access to veterinary inputs, affordability of feed, risk of enterprise failure and whether children may be drawn into hazardous or excessive labour. Group constitutions shall set transparent ownership, benefit-sharing and conflict-resolution rules.

11.6 Briquettes, improved stoves and blacksmithing or craft workspaces

These USPs shall be screened for sustainable feedstock supply, smoke and dust, heat, burns, fire, noise, metal or leather waste, chemicals, ventilation, worker ergonomics, PPE, child-labour risk and neighbour safety. Briquette feedstocks shall not create competition with food, fodder, soil fertility or other essential uses and shall not incentivise forest clearing. Workshops shall have safe layout, storage, ventilation, fire controls and waste arrangements.

The gender assessment shall examine whether women and youth have equal access to training, equipment, markets and income and whether the enterprise increases unpaid work. Traditional practices and cultural identity shall be respected. New technologies shall be piloted and accepted voluntarily rather than imposed as a condition for receiving other benefits.

12. Integration into procurement, contracting and implementation

Safeguards obligations shall be integrated into technical specifications, bills of quantities, tender evaluation, contracts, mobilisation requirements, payment certificates and performance monitoring. Procurement documents shall include the approved site-specific ESMP and identify which measures are priced. Tender evaluation shall consider the bidder's experience, staffing, OHS capacity, waste arrangements, code of conduct and ability to work respectfully with vulnerable and Indigenous communities.

Before mobilisation, the contractor shall submit site-specific implementation plans consistent with the approved ESMP. The Project Unit shall verify induction of workers, signed codes of conduct, PPE, first-aid arrangements, sanitation, waste-storage areas, emergency contacts, complaint channels and community notification. Contractor

payment may be withheld where safeguards deliverables are incomplete. Serious or repeated non-compliance may lead to stop-work orders, corrective action, penalties, replacement of personnel or termination according to the contract.

Force Account Modality and community contribution shall remain subject to the same protections. The use of community labour shall not bypass OHS, child-labour, fair-treatment, voluntary-participation or grievance requirements. The responsible District department shall document who participates, the voluntary or paid nature of the contribution, safety training, supervision and provision of equipment.

13. Grievance redress, incident management and corrective action

13.1 Grievance redress mechanism

The project grievance mechanism shall be operational before USP implementation and shall be publicised during every consultation and at each active site. It shall accept oral, written, telephone, SMS, anonymous and third-party complaints in Kiswahili and relevant local languages. Village focal points shall assist people who cannot read or write by recording complaints accurately and reading them back for confirmation. No fee shall be charged.

The mechanism shall provide accessible entry points through village, ward, district, Project Unit and NEMC channels. It shall specify acknowledgement and resolution timeframes, escalation routes and appeal options. Grievance records shall be disaggregated by sex and group where safe and appropriate. Complaints concerning GBV, sexual exploitation or abuse, harassment or retaliation shall be handled confidentially through a survivor-centred referral pathway and shall not be processed through public mediation or customary forums that may expose the complainant to harm.

13.2 Incident classification and notification

The project shall establish an incident-notification protocol covering fatalities, serious injury, major pollution, significant water contamination, fire, conflict, cultural-heritage damage, GBV/sexual exploitation and abuse or harassment, forced or child labour, serious discrimination, major community protest, breach of FPIC, significant biodiversity damage and any event likely to attract regulatory or public concern. Serious incidents shall be reported immediately to the Project Coordinator and NEMC, followed by a written preliminary report within the period specified by NEMC.

The first priority shall be protection of affected people and prevention of further harm. The project shall preserve evidence, cooperate with competent authorities and maintain confidentiality. Incident investigation shall identify immediate, underlying and systemic causes and shall result in a time-bound corrective-action plan. Work shall remain suspended where continued activity could cause further harm or compromise investigation.

13.3 Corrective action and non-compliance

Corrective actions shall identify the deficiency, required action, responsible entity, deadline, verification evidence and consequence of failure. NEMC may require increased monitoring, independent review, retraining, redesign, compensation or remediation, suspension of disbursement or termination of the activity. Closure shall occur only after verification that the action is effective, not merely after a responsible party reports completion.

14. Monitoring, reporting, audit and adaptive management

14.1 Risk-based monitoring

Monitoring frequency shall reflect risk, implementation stage and performance. Category B construction or drilling activities may require pre-mobilisation verification, routine site supervision, milestone inspections and post-construction monitoring. Category C activities may be monitored through periodic checks. Sites with poor contractor performance, repeated grievances, sensitive receptors or unanticipated impacts shall receive intensified supervision.

Monitoring shall verify both implementation of measures and actual outcomes. For example, it is not sufficient to record that a women's consultation occurred; the project should verify whether women's priorities influenced design and whether women safely access and control benefits. It is not sufficient to record that erosion controls were installed; the project should inspect whether erosion has been prevented after rainfall.

14.2 Minimum USP monitoring indicators

Number and status of USPs in the Register, by category and component;
Percentage of USPs screened and cleared before procurement or works;
Number of USPs requiring additional studies and percentage completed;
Number and proportion of Category B USPs with approved site-specific ESMPs;
Compliance rate with ESMP actions and contract safeguards clauses;
Participation and benefit indicators disaggregated by sex, age, disability and community group;
FPIC processes completed and any conditions of consent;
Environmental indicators relevant to the activity, such as water quality, erosion, waste disposal, restoration survival or invasive species;
Occupational and community health and safety incidents;
Number, type and resolution status of grievances;
Corrective actions overdue and completed;
Material design changes and re-screening undertaken.

14.3 Annual Project Performance Report

The annual Project Performance Report shall identify which USPs were further defined during the reporting year; whether the approved framework and ESMP were applied; the risks identified under the fifteen ESP principles; impact assessments completed; consultations and FPIC undertaken; use of gender-disaggregated data; safeguards and gender measures adopted; monitoring indicators; grievances and incidents; corrective actions; and the current compliance status of each USP. The report shall explain any delay in completing assessment or any case where implementation began before full clearance and the measures taken in response.

14.4 ESMP updating and adaptive management

The project ESMP shall be maintained as a living, stand-alone document. For each approved USP, the final screening, assessment, site-specific ESMP, consultation and FPIC records, NEMC clearance, monitoring results and corrective actions shall be appended or incorporated. The ESMP shall therefore always reflect the most current risk profile of the project, including risks that could not be identified at proposal stage.

Adaptive management shall be triggered where monitoring shows that a mitigation measure is ineffective, climate conditions differ from assumptions, community use patterns change, gender gaps emerge, an impact occurs outside the predicted area, a grievance reveals a systemic issue, or the activity design changes. The response may include additional consultation, revised design, new indicators, increased budget, additional technical assessment or suspension.

14.5 Audit and evaluation

Annual environmental, social and gender audits shall sample USP files and field sites to verify the quality of screening, timeliness of clearance, implementation of mitigation, contractor compliance, consultation, FPIC, grievance management, budget use and reporting. Audit recommendations shall be entered into a corrective-action tracker and reviewed by NEMC.

The mid-term review and final evaluation terms of reference shall expressly assess the USP mechanism. They shall examine whether USPs received a risk-identification and management process comparable to fully identified activities; whether gender-disaggregated data and meaningful consultation were used; whether the ESMP remained current; whether grievances and incidents were handled effectively; and whether safeguards measures protected vulnerable groups while sustaining adaptation benefits.

15. Capacity building, staffing and budget

15.1 Capacity requirements

At project inception, NEMC shall assess the capacity of the Project Unit, Executing Entities, District departments and community institutions to implement this framework. The assessment shall examine staffing, qualifications, time allocation, field transport, data systems, consultation skills, gender expertise, FPIC experience, OHS capacity,

technical equipment and authority to enforce corrective action. Capacity gaps shall be addressed before high-risk USPs are processed.

Training shall cover the Adaptation Fund ESP and Gender Policy, USP requirements, the fifteen principles, evidence-based risk identification, AF categorisation, gender and social inclusion, Indigenous Peoples and FPIC, stakeholder engagement, grievance handling, GBV/sexual exploitation and abuse and harassment, labour and OHS, sector-specific screening, contractor management, incident reporting, monitoring and record keeping. Refresher training shall be provided when audits reveal weak performance or staff changes occur.

15.2 Budget principles

The USP safeguards budget shall be adequate for the number, complexity and possible worst-case Category B requirements of the project. It shall not be limited to the cost of completing a short screening form. It must cover field screening, technical studies, environmental and social assessments, gender analysis, consultations, FPIC, disclosure, preparation of site-specific ESMPs, committee review, NEMC supervision, monitoring, water and environmental testing, audits, grievance operation, capacity building, incident investigation, corrective action and contingency.

The project shall reconcile the number of planned screenings with the full USP inventory. Ten boreholes alone may require ten site-specific screenings, before resource centres, restoration sites, apiaries and livelihood infrastructure are considered. Where several technically identical micro-sites can legitimately be assessed together because they share the same environmental and social setting, the rationale shall be documented; aggregation shall not be used to conceal distinct sites or affected groups.

Mitigation costs shall be incorporated into activity budgets, engineering designs, bills of quantities and contracts. The central ESMP budget should finance project-wide safeguards functions, while site-specific implementation costs should be charged to the relevant USP. Contingency shall be available for additional assessment or corrective action, but it shall not be used to finance an activity that remains Category A or otherwise ineligible.

16. Documentation, quality assurance and records

Each USP file shall contain, at minimum: the concept note; eligibility decision; site and technical dossier; stakeholder analysis; consultation plan and records; FPIC determination and evidence; completed Annex 5 screening form; technical studies; legal and permit matrix; risk-category justification; gender and social inclusion assessment; site-specific ESMP and related plans; Committee minutes and recommendation; NEMC clearance; procurement safeguards documents; pre-mobilisation checklist; monitoring reports; grievances; incidents; corrective actions; photographs; completion and handover records; and safeguards closure form.

Documents shall be dated, version-controlled and signed by responsible officers. Material revisions shall show what changed and why. Digital records shall be stored in a secure central system with appropriate backup and access controls. Personal and sensitive information shall be protected. NEMC shall conduct periodic desk reviews to verify completeness and consistency before field verification.

Quality assurance shall examine not only whether forms are present but whether the analysis is credible. Warning signs include identical text copied across different sites, all risks automatically rated low, absence of women or Indigenous participants, mitigation without budget, missing maps or permits, clearance after works have started, and monitoring reports that repeat planned measures without evidence of results.

17. Summary decision flow and approval gate

The operational approval gate is summarized as follows:

Gate	Required action	Lead responsibility	Decision/output
1. Concept	Executing Entity prepares USP concept and justification.	Project Unit Safeguards Specialist	Proceed to eligibility review or reject.
2. Eligibility	Check approved scope, exclusion list and whether activity is a permissible partially unidentified USP.	Project Unit + relevant sector officer	Eligible / redesign / reject.

3. Dossier	Complete site, design, land, beneficiary and technical information.	Executing Entity and District technical team	Dossier accepted as complete.
4. Consultation	Stakeholder identification, participatory site selection, disclosure and FPIC where applicable.	Social/Gender team and community structures	Consultation evidence accepted.
5. Screening	Assess all 15 ESP principles, gender, climate and cumulative impacts.	Multidisciplinary screening team	Proposed category and studies.
6. Assessment	Complete technical studies, impact assessment and site-specific plans.	Qualified specialists / Executing Entity	Instruments ready for review.
7. Committee review	Review evidence, category, mitigation, budget, permits and capacity.	USP Safeguards and Technical Review Committee	Approve recommendation/conditions/redesign / reject.
8. Final clearance	Issue written safeguards decision.	NEMC authorized officer	Clearance or no clearance.
9. Procurement gate	Insert requirements in contracts and verify contractor readiness.	Project Unit procurement and safeguards team	Mobilisation authorisation.
10. Monitoring and closure	Supervise, report, correct, hand over and close safeguards file.	Project Unit, District, NEMC	Closure with ongoing obligations identified.
