



ADAPTATION FUND

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Project and Programme Review Committee
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Bonn, Germany, 19-23 October 2026

PROPOSAL FOR ETHIOPIA, SOMALIA



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT
TECHNICAL REVIEW OF PROJECT PROPOSAL FOR
"AGRO-INNOVATION AND LIVESTOCK SYSTEMS FOR RESILIENT LIVELIHOODS IN THE
HORN OF AFRICA"

Project Title Agro-innovation and livestock systems for resilient livelihoods in the
Horn of Africa

Project ID AF00000557

Category Regular size project (over \$1 million)

Type Regional project

Stage Concept

Country Regional (Ethiopia, Somalia)

Implementing Entity UNIDO

Financing Requested USD 30,000,000.00

Reviewer Camila Florez

Co-reviewer(s)

IE Contact Person

Ganna Onysko, Mark Grigoryan, Natale Guarnaccia, Olga Gordiievska, Yoseph Delegen, Yvonne Lokko

Secretariat's Overall Comment

The project aims to strengthen the climate resilience and adaptive capacity of vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia's arid and semi-arid rangelands.

The proponents have submitted a PFG requesting \$150,000.

The initial technical review raised several issues, such as the stakeholder consultations, the full cost of adaptation reasoning, and the Alignment of the project with AF results framework among other issues discussed in the number of Clarification Requests (CRs) and Corrective Action Request (CAR) raised in the review.

Country Eligibility

Are all of the participating countries party to the Kyoto Protocol, or the Paris Agreement?

Response: Yes

Secretariat: Yes. Somalia ratified the Kyoto Protocol on July 26, 2010, and the Paris Agreement on April 22, 2016. Ethiopia ratified the Kyoto Protocol on 14 April 2005, and the Paris Agreement on 09 March 2017

Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?

Response: Yes

Secretariat: Ethiopia and Somalia are vulnerable to increased droughts and floods which directly impact pastoral and agro-pastoral livelihoods in these countries.

Project Eligibility

Have the designated government authorities for the Adaptation Fund from each of the participating countries endorsed the project/programme?

Response: Yes

Secretariat: As per the Endorsement letters dated October 10, 2025 (Ethiopia), and July 15, 2026 (Somalia).

Does the length of the proposal amount to no more than fifty (50) pages for the project/programme concept, including its annexes?

Response: Cleared

Secretariat: The concept note is 50 pages, including its annexes.

Kindly note that Part III, where you explain the implementation arrangements, is not needed at the concept note stage. You may delete this information if you need the space to respond to the CR and CARs raised in the review. However, please keep "Table 5: Alignment of the project with AF results framework" in Part III for further reference.

Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?

Response: Not Cleared

Secretariat: Yes; however, amendments are required. This regional project, in Somalia and Ethiopia, integrates cross-border governance, harmonized rangeland and livestock systems, interoperable regional digital and early warning platforms, regional community-based breeding programs and coordination mechanisms.

CR: Output 1.1.1 indicates that rangeland master plans would be co-developed with communities and integrated into policy. How would you ensure governments approve the master plans and integrate them into national and Cross-Border Policy Frameworks?

CR1: Kindly clarify what is meant by "directly resourced" in Output 1.1.2.

CR2: Kindly develop further the climate change context in Section I. The project description needs to clearly demonstrate that each project component and output contributes to addressing climate change impacts and that it is beyond a business-as development in regards to land degradation. Please ensure that, in Section II, project activities are directly addressing the climate change impacts identified.

CR3: In Section II.A., under the innovative mechanisms header, it is indicated that the project would include a small-grants mechanism. However, this is not specified under the project components, outputs, or activities, and it is unclear what kinds of activities the small grants fund would support, or whether this has implications for the project ESP. Kindly revise accordingly. Also, please clarify the size and amount of the grants, and the specific types of activities they would support.

CAR1: Please update the numbering of Section II to match the regional concept note proposal template. The

description of project components should be under A. <https://www.adaptation-fund.org/document/regional-concept-note-proposal-template/>

CAR2: Explicitly state how the components link to the AF Strategic Objectives, including objective numbers and descriptions in Part II, A.

CAR3: Kindly revise the project calendar (Table 2) and make sure that the Terminal Evaluation is completed up to nine months after project closure.

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 of the Fund?

Response: Not Cleared

Secretariat: The project would be implemented in in Borana Zone, Somali Region, South Omo Zone in Ethiopia, as well as Baidoa, Beledweyne, and Jariiban in Somalia. The project aims to restore 450,000 to 600,000 hectares of degraded drylands across both countries.

CR4: Kindly indicate the number of direct beneficiaries, direct and indirect. Then, please disaggregate the project beneficiaries further, considering intersectionality, for example, by gender, age and indigenous identity if possible.

CR5: Please clarify the "220,000 participating households" figure; are these indirect beneficiaries?

CR6: Kindly highlight expected quantified benefits, for example, how many cooperatives and producer organizations would be supported? How many women and youth will be trained for leadership roles and/or participate in the pastoral field schools?

CR6: Please indicate whether indigenous peoples live in the prioritized regions, and if yes, indicate the benefits to indigenous peoples specifically. Please also indicate the proportion of beneficiaries that are indigenous people.

CR7: How will the project ensure the equitable distribution of benefits to vulnerable households, and individuals within the communities selected? Which prioritization method will be used?

CAR4: In Section II, B, please refer to the initial gender analysis (Annex 3) and explain how this has informed the project design. In the Annex, this information is limited to a summary of consultations with women; however, the proponent should conduct an analysis (using the consultation data and additional information) to determine the specific needs, capabilities, roles, and knowledge resources of women and men in relation to the project. Ensure that the initial gender assessment provides qualitative and quantitative data. Please include the details of the assessment in the Annex as well.

Is the project / programme cost-effective and does the regional approach support cost-effectiveness?

Response: Not Cleared

Secretariat: The concept note does not demonstrate the cost-effectiveness of the selected approach in the project context. In particular, there's no analysis demonstrating the effectiveness of the proposed solutions in comparison to alternative options.

CAR5: Please demonstrate that the selected approach is effective compared to alternative adaptation options that could take place to help increase the climate resilience of the vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia.

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? If applicable, it is also possible to refer to regional plans and strategies where they exist.

Response: Cleared

Secretariat: Yes. The project supports both Ethiopia's and Somalia's NDCs and NAPs, as well as the countries' national development frameworks and their livestock and rural development policies.

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

Response: Not Cleared

Secretariat: No. Part II, Section E does not identify specific standards and regulations.

CAR6: Kindly provide a comprehensive table listing all applicable national technical standards (including Environmental Impact Assessments (EIAs), building codes, and any other sector-specific regulations) for the proposed project across both participating countries. The columns in the table should include: i. Specific name/number of the standard/regulation, ii. Goals/objectives iii. How it is related to the proposed project (mention specific project output) iv. Project's compliance status/approach

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

Response: Not Cleared

Secretariat: No. Part II, Section F does not describe a thoroughly the lack of duplication with other funding sources.

CAR7: Kindly revise Table 3 to also include:

- i. Project timeline
- ii. Description and Objectives
- iii. Main project interventions,
- v. Target Population
- vi. Lessons learned
- viii. Duplication, geographic or thematic (yes or no, explain)

Kindly include all relevant projects, such as the one led by ADRA Norway, which focuses on similar Index-Based Livestock Insurance.

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

Response: Not Cleared

Secretariat: No. Part II, Section G, describes the project's knowledge management approach, which is embedded in its planning, budgeting, and facilitation processes. The proponent uses an adaptive learning approach to the proposed innovations and will synthesize and draft lessons for different audiences. Under Component 1, the project plan includes an inclusive regional and national learning platform for continuous community-to-community knowledge exchange (Output 1.1.3).

CAR8: Please make the KM activities more explicit by either expanding on Component 1, Output 1.1.3 on KM or creating a dedicated KM component (i.e., Component 5). This allows the knowledge management budget to be clearly identified.

CR8: Please specify:

- i. How will the project keep track of all experience gained?
- ii. How frequently the experiences and lessons gained will be documented and tracked (monthly, quarterly, etc)
- iii. Who will be responsible for tracking the experiences gained, how this will be done, and when the tracking will take place (e.g. an M&E Officer/ Knowledge Management Officer in the Project Management Unit).
- iv. How will the knowledge generated be sustained after the project concludes, at the local, national, and regional levels?

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: Not Cleared

Secretariat: Yes, but amendments are required.

UNIDO has led stakeholder consultations, starting with a virtual meeting on July 11, 2025 with Somali government representatives and on July 23, 2025 with Ethiopia's government.

This was followed by local consultations held between October 29 and November 9 2025 across three regional states of Ethiopia and four regions in Somalia. In Ethiopia, these consultations engaged 206 participants (101 men and 105 women), including pastoralists and agro-pastoralists, women and youth groups, cooperative members, extension agents, and traditional and clan leaders. Parallel consultations were held in Somalia. Then, on November 11, 2025, a stakeholders' validation workshop was held in Ethiopia.

The proponent has indicated that during the PFG, further consultations and regional stakeholders' validation workshops will be held to validate the proposed cross-border and regional coordination mechanism.

CR9: Please indicate which government ministries were consulted in Somalia on July 11, 2025.

CR10: Kindly clarify the number of local participants engaged in Somalia, and disaggregate by gender.

CR11: Please clarify whether Somali counterparts participated in the stakeholders validation workshop on November 11, 2025.

CR12: Please clarify the following: i. Whether vulnerable and indigenous groups were consulted during the

concept development and how their views have been incorporated. ii. How vulnerable groups will be identified and meaningfully engaged during subsequent consultations and project design.

CR13: Please include in the concept note the names of the organisations, such as women's groups, farmer groups, or other relevant civil society organisations, that will be consulted.

CR14: In Annex 4, please prepare an additional table that summarizes the local consultations held in both countries, including: i. A summary of the subjects/issues discussed and any agreements reached. ii. Indicate how their interests have been incorporated in the project, including how gender and other vulnerable group considerations were addressed.

CR15: In Annex 4, please revise Table 11 to indicate the type of stakeholder (government, research, financial institution, etc).

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

Response: Not Cleared

Secretariat: Partially.

The proposal does not describe the full cost of adaptation reasoning with a baseline scenario without AF resources and an AF project scenario per project outcome.

CR16: Please provide a baseline scenario and the AF project scenario with a description per project component.

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

Response: Not Cleared

Secretariat: No.

CAR9: Kindly indicate the alignment with the AF strategic results framework in Section II.A for each project component, and for Table 5 follow the new template: <https://www.adaptation-fund.org/document/alignment-with-adaptation-fund-results-framework-template-and-guidance-dec-2025/>

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

Response: Not Cleared

Secretariat: Yes, but amendments are required.

CR17: Kindly indicate in Part II, Section J:

- i. the organisations responsible for continuing activities and whether responsibilities will be formalised through commitments/MOUs;
- ii. participation of communities and vulnerable groups in decision-making,
- iii. government financing of maintenance and recurrent costs and partner commitments.

CR18: Please note that the AF template uses "environmental" sustainability rather than "ecological". Kindly amend it.

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: Not Cleared

Secretariat: The concept note classifies the project as category B.

CR19: Table 4 indicates low risk for climate change and no identified risk; it may then be marked in the second column with an "X, meaning no further assessment is required.

CAR10: Kindly clarify whether any activities/components will be treated as Unidentified Sub-Projects (USPs) under AF guidance, given the proposed grant mechanism. If yes, please explain which activities would be considered USPs, why, and how USP risks will be screened and managed prior to implementation (including how this will be reflected in the ESMP/ESIA scope, stakeholder engagement, and grievance mechanisms).

CAR11: It is unclear whether the status and presence of indigenous peoples have been verified at this stage of the process, and whether their needs and priorities have been assessed. Please ensure that IPs are consulted and that the risk assessment and mitigation are consistent with the findings.

CAR12: Please state that the project will comply with the AF Environmental and Social Policy and Gender Policy.

CR20: Please clarify potential transboundary risks and whether they were considered.

CR21: Kindly clarify what is meant by the risk "Biodiversity and livestock genetic integrity" - what is the risk?

Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?

Response: Not Cleared

Secretariat: CR22: Please clarify what "subproject 1 " is referenced under "Investing in local capabilities to leave an institutional legacy" (page 20).

CR23: Kindly expand further on why the CBBPs for small ruminants and camels are a pioneering approach.

CR24: Please expand on the innovation of linking the Index-Based Livestock Insurance (IBLI) and digital marketplaces to a small grants mechanism.

CR25: Kindly explain why the pastoral field school is considered an innovative extension approach.

CR26: Please explain what makes the one-stop shop (OSS) an innovation in the chosen countries.

Resource Availability

Is the requested project / programme funding within the funding windows of the regional projects/programmes?

Response: Cleared

Secretariat: Yes

Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 10 per cent of the project/programme for implementing entity (IE) fees and at or below 10 per cent of the project/programme cost for the execution costs?

Response: Cleared

Secretariat: Yes.

CR26: When the IE is serving as EE, as indicated in the proposal, this must be well justified. Kindly provide the justification.

Also, please note that the execution cost should be limited to 1.5% of the part of the project/programme executed by the implementing entity. This should be indicated at the full project proposal stage and endorsed by the DAs.

Eligibility of IE

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

Response: Cleared

Secretariat: Yes. UNIDO is an accredited MIE as of November 2020.



ADAPTATION FUND

CONCEPT NOTE FOR REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa

Countries: Ethiopia and Somalia

Thematic Focal Area: Food security

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: UNIDO

Executing Entities: Ethiopian Agricultural Transformation Institute (ATI), East African Environmental, Agro and Livestock Company (East-Agro) Somalia and UNIDO

Amount of Financing Requested: 30,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request: Yes ☒ No ☐

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letters of Endorsement (LOE) signed for all countries: Yes ☒ No ☐

NOTE: LOEs 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 Submission¹:

☐ This proposal has been submitted before including at a different stage (pre-concept, 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: Click or tap to enter a date.

Please note that the Concept note document should not exceed 50 pages, including annexes

¹ At the concept note stage only Section I and II are needed.

Abbreviation

ASIS	Agricultural Stress Index System	JRC	Joint Research Centre (European Commission)
BREFONS	Build Resilience for Food and Nutrition Security	KYC	Know Your Customer
CALM	Climate Action and Landscape Management	LSDS	Livestock Sector Development Strategy
CCPP	Contagious Caprine Pleuropneumonia	LLRP	Lowlands Livelihood Resilience Project
CFP	Chance Finds Procedure	LMIS	Livestock Market Information System
CHIRPS	Climate Hazards Group InfraRed Precipitation with Station data	MTEF	Medium-Term Expenditure Framework
CPS	Conflict Prevention System	NARS	National Agricultural Research Systems
DRDIP-2	Development Response to Displacement Impacts Program-2	ND-GAIN	Notre Dame Global Adaptation Initiative
DRIVE	De-Risking, Inclusion and Value Enhancement of Pastoral Economies	PACT	Participatory Agriculture and Climate Transformation Programme
DRSLP	Drought Resilience and Sustainable Livelihoods Program	PPR	Peste des Petits Ruminants
East-Agro	East African Environmental, Agro and Livestock Company	PRIME	Pastoralist Areas Resilience Improvement through Market Expansion
ENSO	El Niño–Southern Oscillation	RCCC	Red Cross Red Crescent Climate Centre
EVI	Enhanced Vegetation Index	RLLP	Resilient Landscape and Livelihood Project
FSNAU	Food Security and Nutrition Analysis Unit (Somalia)	SEA-SH	Sexual Exploitation, Abuse, and Sexual Harassment
GRACE	Gravity Recovery and Climate Experiment	SWC	Soil and Water Conservation
IBLI	Index-Based Livestock Insurance	VCA	Value Chain Analysis
ICARDA	International Center for Agricultural Research in the Dry Areas		
ICPAC	IGAD Climate Prediction and Applications Centre		
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative		
IGAD	Intergovernmental Authority on Development		
IVR	Interactive Voice Response		

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Project/Programme Background and Context

The Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa (AgrInnova) project is designed as a regional initiative for Ethiopia and Somalia, recognizing that pastoral and agro-pastoral systems rangelands and livestock operate across shared ecological zones and porous borders. The project addresses the interconnected challenges faced by communities in both countries by tackling rangeland degradation and strengthening the climate resilience of key livestock species, particularly small ruminants and camels, while promoting cross-border collaboration and harmonized approaches. The project is also designed to facilitate service systems that empower communities to take the lead in identifying, designing, implementing, and managing adaptation strategies to disrupt the cycle of crisis and dependency. Pastoral and agro-pastoral systems in east Africa are under increasing pressure from recurrent droughts, erratic rainfall, floods, and rising temperatures, with impacts that transcend national boundaries. These shocks cause forage and crop failures, high livestock morbidity and mortality, and environmental damage, leading to food insecurity, loss of income, migration, and conflict over scarce resources. Despite these shared challenges, responses remain largely fragmented along national lines, with limited mechanisms for coordinated planning, financing, and implementation at the regional level. Current national plans lack the skills, financing, and practical mechanisms to devolve decision-making and resources to the local level, leaving communities trapped in cycles of crisis and dependency. Focusing on small ruminants and camels offers the most strategic regional pathway to resilience, a strategy long advocated by pastoral communities. Camels provide unmatched drought tolerance, heat resistance, and milk production during dry spells, serving as a nutritional and economic safety net. Goats and sheep, with their rapid reproduction and ability to thrive on sparse vegetation, enable fast herd recovery and generate regular income. Strengthening these value chains directly benefits women and youth, primary managers of small stock and milk, while creating climate-friendly jobs that reduce instability and migration pressures. This project is designed to be led by these local actors, ensuring solutions are grounded in their reality and priorities.

Despite their potential, these value chains face deep constraints: weak rangeland and water governance, limited technical and institutional capacity, poor access to climate finance and markets, lack of resilient infrastructure (processing, cold storage, aggregation), and weak traceability and animal health systems. Proven innovations such as regenerative rangeland management; community-based breeding programs (CBBPs); pastoral field schools (innovative extension approach for adults); digital solutions such as pastoral advisory service, and market information system. It also promotes integrated service delivery models, such as one-stop shop (OSS) centers to improve access to inputs and services and finance. By aligning these interventions across Ethiopia and Somalia, AgrInnova aims to unlock the full potential of livestock systems as drivers of resilience, economic stability, and peace in the Horn of Africa.

Geographic, Social, Economic, and Environmental Context

Geographic Context

The project focuses on arid and semi-arid dryland areas in Borana Zone, Somali Region, South Omo Zone in Ethiopia, as well as Baidoa, Beledweyne, and Jariiban in Somalia- all located within drought-prone rangeland belt of the Horn of Africa. These landscapes are characterized by open grazing systems, sparse vegetation, and highly variable rainfall regimes that depend on short, unreliable wet seasons. Drought vulnerability maps show extremely low vegetation cover (NDVI ~0.3), reflecting severe ecological stress, recurrent feed shortages, and chronic water scarcity. Rainfall distribution is equally uneven: western Borana and parts of South Omo receive slightly higher rainfall, while eastern Ethiopia and most of central/northern Somalia remain persistently dry. The region relies heavily on seasonal rivers, ephemeral ponds, and shallow groundwater, which are rapidly diminishing under rising temperatures and repeated droughts. These transboundary rangelands form interconnected livestock mobility corridors, linking communities across Ethiopia and Somalia but also heightening competition for scarce resources. This geographic reality makes the area one of the most climate-vulnerable dryland systems in the Horn of Africa, requiring integrated, community-led adaptation interventions. South Omo's inclusion reflects its embeddedness in the East African pastoral corridor, where seasonal livestock

mobility links South Omo through Kenya into Somalia's pastoral systems. Livestock mobility is the primary pathway for transboundary zoonotic disease transmission (tuberculosis, brucellosis) that directly threatens Somalia's pastoral resilience. Climate shocks in South Omo force pastoral displacement into Kenya and Somalia, triggering resource competition and conflict escalation. By strengthening South Omo's rangeland governance and adaptive capacity, the project reduces climate-driven pastoral displacement and mitigates disease transmission, resource conflict, and livelihood losses that link South Omo vulnerability to Somalia's pastoral fragility.

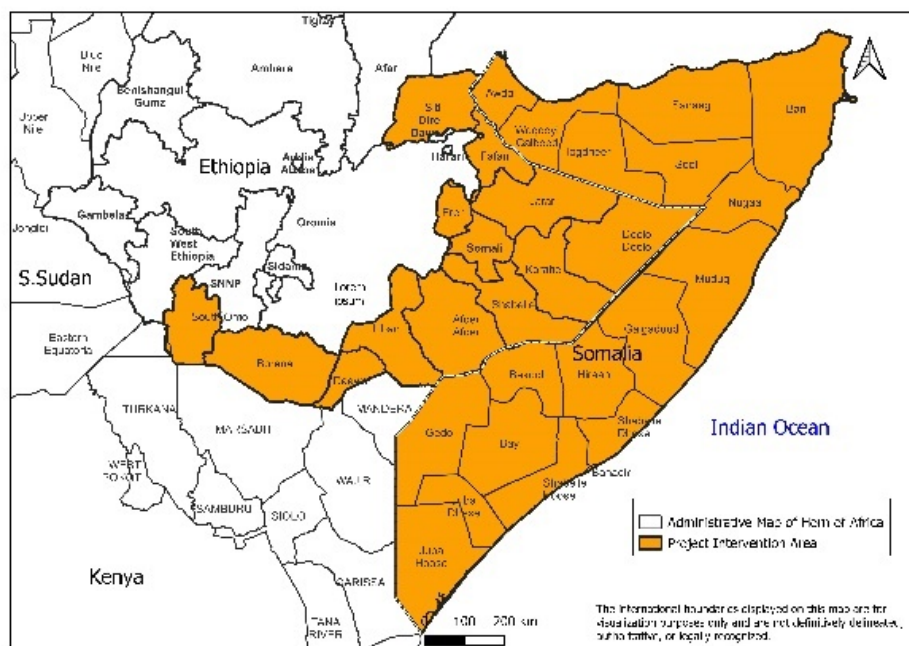


Figure 1: Project intervention areas in the Ethiopia and Somalia

Social Context

Communities in these regions face high levels of social vulnerability driven by limited access to services, weak local governance, and recurring climate-induced displacements. Women and youth play central roles in livestock production, processing, and trade, yet remain excluded from leadership and decision-making. Gender norms, unequal access to finance and markets, and limited voice in governance structures significantly constrain adaptive capacity. Although Ethiopia and Somalia recognize community-level action in policy, the devolution of authority and resources has not been fully realized. The project directly addresses this gap by ensuring that cooperatives, community institutions, women, youth, and marginalized groups are not passive participants but leaders in planning, budgeting, and implementing adaptation actions.

Economic Context

According to the drought vulnerability map (Figure 2, left), the project areas in the Somali and Oromia (Borana) regions of Ethiopia, as well as in Somalia, are classified within zones of high drought vulnerability, as reflected by an NDVI value of approximately 0.3. This high value reflects a serious deficiency in vegetative cover, which serves as a key indicator of ecological stress and water scarcity. The map identifies areas such as the Shabelle and Juba Hoose River basins in Somalia, extending into the Somali and Borana regions of Ethiopia, as particularly vulnerable to the effects of drought. This increased vulnerability presents considerable risks to livelihoods that rely mainly on rain-fed agriculture and pastoralism, highlighting the urgent need for a regional project initiative to enhance resilience in these communities. The rainfall distribution map (Figure 2, right) shows that the amount of rainfall in the project areas is generally low, resulting in sparse pasture vegetation and inadequate conditions for reliable rain-fed agriculture. The northern Somali region of Ethiopia, particularly the Fafan zone, tend to

experience relatively better conditions than the central areas. In Oromia region, especially in Borana Zone, the western areas benefit from comparatively higher rainfall originating from the Oromia highlands, supporting grasslands, whereas the eastern edges merge into the arid Somali lowlands. In the South Omo Zone, localized weather variability contributes to a mosaic of ecosystems, although overall rainfall remains low. In Somalia, southern regions such as Gedo and Juba Hoose receive relatively more rainfall than the arid northern parts, yet they are significantly drier than the Ethiopian highlands. These conditions reinforce the chronic water stress and climate fragility of the project zones.

Development Context and Potentials

Despite these challenges, Ethiopia and Somalia have both articulated ambitious transformation pathways. Ethiopia's Ten-Year Perspective Development Plan (2021-2030), Climate Resilient Green Economy (CRGE), NDC 3.0, LT-LEDS, and National Adaptation Plan (NAP) prioritize climate-resilient agriculture, livestock productivity, and sustainable rangeland use. The Agriculture and Rural Development Policy (2024) and National Livestock and Fisheries Extension Strategy and Roadmap (2023-2033) specifically aim to improve productivity and commercialization within the livestock sector. Similarly, Somalia's NDC and NAP emphasize adaptation in pastoral systems, water management, and climate-smart livestock production. The National Transformation Plan (NTP) and the Livestock Sector Development Strategy (LSDS- 2020-2030) seek to restore Somalia's status as a leading livestock exporter by enhancing animal health, value chains, and market access. Regionally, the Drought Disaster Resilience and Sustainability Initiative (IDDRSI) of the Intergovernmental Authority on Development (IGAD) in Eastern Africa, offers a structured framework for cross-border cooperation related to drought management, Rangeland Health, and livestock movement and international partners, including the World Bank, FAO, IFAD, ILRI, and ICARDA, are advancing these regional development strategies.

These policies offer strong potential for scaling agro-innovation and livestock systems; however, implementation gaps persist due to weak institutional and technical capacity, underdeveloped community-based rangeland management, and constrained market access, climate finance, and early warning systems. Additionally, limited decentralized capacity, fragmented funding, and poor coordination among federal, regional, and community-level institutions, insufficient regulatory enforcement, and limited public investment in the pastoral economy significantly affect development effects. These systemic gaps are compounded by fragile ecosystems, transboundary pressures on grazing resources, and institutional readiness constraints, which hinder the implementation of scalable climate solutions. The project plans to tackle these issues by delegating decision-making and resources to community cooperatives, acting to implement these higher-level policies and the project seeks to bridge these gaps by functioning as a mechanism that provides patient, predictable, and accessible funding and capacity support directly to local actors. By working through and strengthening existing community institutions, the project will ensure that financial and technical resources are allocated based on locally identified priorities rather than externally driven agendas. This in turn helps to root national and regional policies in local realities and priorities, thereby enhancing their sustainability and overall impact

Environmental and Climate Context

The cross-border lowland regions of Ethiopia and Somalia are among the world's most climate-vulnerable dryland ecosystems. Both countries are repeatedly identified as climate hotspots, with the frequency, severity, and unpredictability of climatic shocks intensifying over the past decades (IPCC, 2022). Drought cycles that once occurred every 7–10 years now recur every 2–3 years, leaving rangelands degraded, water sources depleted, and pastoral and agro-pastoral livelihoods increasingly under pressure. Concurrently, episodic floods and erratic rainfall patterns disrupt grazing systems, damage infrastructure, and limit mobility, which is seen as an essential coping strategy for pastoral communities.

The project's target areas, i.e., Borana Zone, Somali Region, and South Omo Zone in Ethiopia, together with adjacent Somalia territories, are characterized by fragile rangeland ecosystems where land degradation is both a driver and consequence of climate stress. Declining vegetation cover, invasive species encroachment, and overgrazed communal lands diminish the availability of quality forage and

critically undermine livestock productivity. These stresses intersect with socio-economic vulnerabilities, heightening the risk of displacement and exacerbating competition over scarce natural resources.

Despite these challenges, the landscape holds substantial potential for climate-resilient transformation. Pastoral and agro-pastoral borderlands are naturally suited for regenerative rangeland restoration, the introduction of drought-tolerant forage species, and the adoption of climate-smart livestock systems, particularly for small ruminants and camels, which are more resilient to dryland conditions. When combined with strengthened governance systems, improved mobility arrangements, and reliable access to markets and climate information, these areas can evolve into hubs of resilience-building and regional economic integration.

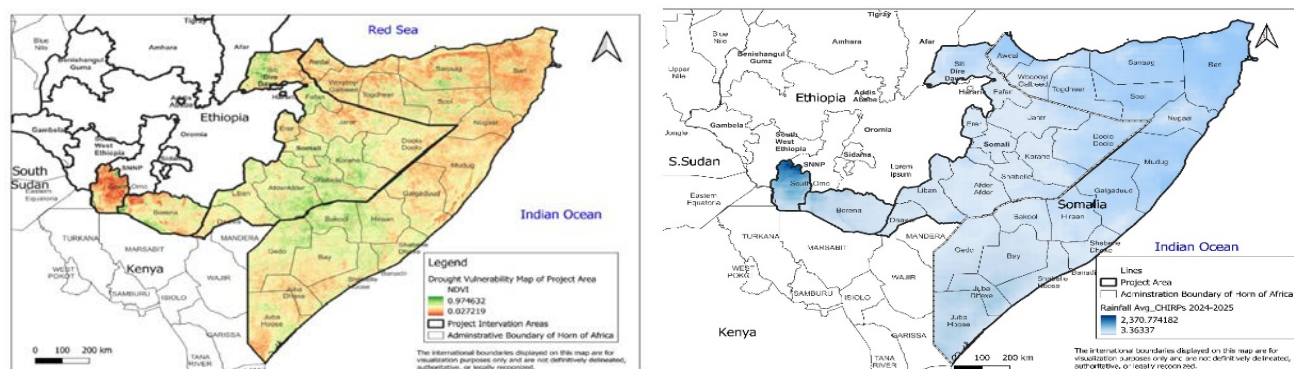


Figure 2: Drought Vulnerability map of the project areas (NDVI: Left) and Current rainfall patterns across Ethiopia (Borana, Somali Region, and South Omo) and Somalia (Right).

Project/Programme Objectives

The project aims to strengthen the climate resilience and adaptive capacity of vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia's arid and semi-arid rangelands. It promotes sustainable livelihoods through climate-smart rangeland and livestock interventions, focusing on small ruminants and camels. By scaling proven innovations, expanding access to finance, and strengthening regional trade, the project will empower communities across the region to lead climate adaptation efforts and build more resilient dryland systems. Thus, the project will mainly focus on enhancing climate-resilient rangeland and livestock (small ruminant & camel) systems and agro-innovation through community-based approaches. The project intended development impact will be achieved through the following specific objectives:

- Strengthen adaptive governance and local decision-making: to ensure meaningful participation of women, marginalized and vulnerable communities (MVCs) in climate adaptation design and decision-making.
- Restore and sustain rangeland ecosystems through community action.
- Enhance climate-resilient livestock production and inclusive markets.
- Expand access to climate finance and risk management.
- Expand the uptake of locally relevant technologies.
- Strengthen knowledge transfer and learning mechanisms. Advance regional integration and economic resilience.

The project contributes to eight Adaptation Fund outcome areas that collectively strengthen resilience across the Ethiopia–Somalia drylands. It advances **Outcome 1** by reducing exposure to climate hazards through improved risk assessments, early warning systems, and climate advisory services used by pastoral and agro-pastoral communities. It strengthens **Outcome 2** by building institutional capacity among cooperatives, community-based organizations, and public institutions to manage climate risks and access adaptation finance, and supports **Outcome 3** by increasing awareness, ownership and engagement of communities in the adaptation and climate risk reduction processes. The project further

advances **Outcome 4** by strengthening climate-resilient development services and small-scale infrastructure, particularly climate-smart water systems that enhance adaptive capacity under increasing climate variability.

The project contributes to **Outcome 5** by restoring and improving the management of degraded rangelands, enhancing ecosystem resilience and critical ecosystem services. It strengthens **Outcome 6** by diversifying and reinforcing climate-resilient livelihoods through improved breeding systems, climate-smart livestock husbandry, inclusive value-chain development, and digital market and advisory services that stabilize and increase incomes. The project advances **Outcome 7** by integrating climate-resilient rangeland and livestock management into national and regional policies and institutionalizing Ethiopia–Somalia–IGAD cross-border coordination mechanisms. Finally, it contributes to **Outcome 8** by enabling innovation and scale-up through community-centered digital, geospatial, financial, and learning innovations that strengthen long-term adaptation capacity.

Project/Programme Components and Financing

Table 1: Summary table of project components and financing

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$ million)
1. Institutional and Technical Capacity Strengthening	Outcome 1.1: Local institutions, communities, and cooperatives empowered with devolved authority and skills for coordinated, community-led rangeland and livestock management under climate change.	Output 1.1.1: National and regional regenerative rangeland master plans co-developed with communities and integrated into policy.	Ethiopia & Somalia	1,700,000
		Output 1.1.2: Community-based organizations and cooperatives established, strengthened, and directly resourced to take up adaptation actions.		2,137,231
		Output 1.1.3: Inclusive regional and national learning platforms operational for continuous community-to-community knowledge exchange.		745,749
2. Community-Based and Inclusive Rangeland Resource Management	Outcome 2.1: Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.	Output 2.1.1: Innovative and community led financing models for rangeland restoration implemented and scaled.	Ethiopia & Somalia	3,310,939
		Output 2.1.2: Community based nurseries and cooperatives for propagation of drought-tolerant native forage species established		1,250,000
	Outcome 2.2: Rangeland health improved through inclusive, community-driven management systems.	Output 2.2.1: Participatory rangeland monitoring systems established to guide adaptive, decision-making.		1,000,000
		Output 2.2.2: Small-scale, climate-smart water harvesting structures built and maintained through community stewardship.		2,300,000
3. Innovative and Inclusive Livestock (Small Ruminant & Camel) Production	Outcome 3.1: Climate-smart small ruminant and camel systems enhanced, resulting in strengthened and resilient livelihoods.	Output 3.1.1: CBBPs, husbandry, and health innovations are scaled	Ethiopia & Somalia	3,000,000
		Output 3.1.2: Community-oriented digital, advisory, and market systems (user-friendly digital tools and advisory services)		2,700,000

		established to support inclusive decision-making.		
		Output 3.1.3: Livestock value chains strengthened through inclusive enterprises and partnerships with women, youth, and MSMEs.		3,550,000
4. Regional Cooperation & Digital Innovation for Early Warning	Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management.	Output 4.1.1: Community-inclusive regional platforms and cross-border coordination mechanisms institutionalized.	Ethiopia & Somalia	1,509,862
		Output 4.1.2: Geospatial and AI-enabled monitoring systems deployed with community data inputs; interoperable early warning services operational.		1,004,000
		Output 4.1.3: Financial innovations and community-accessible market intelligence systems established.		1,046,000
5. Project/Programme Execution Cost				2,018,947
6. Total Project/Programme Cost				27,272,728
7. Programme Cycle Management Fee				2,727,272
Total Amount of Financing Requested				30,000,000

Projected Calendar:

Table 2: Project milestones

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2028
Mid-term Review (if planned)	June 2030
Project/Programme Closing	January 2033
Terminal Evaluation	December 2032

PART II: PROJECT/PROGRAMME JUSTIFICATION

Project/Programme Component Description

The project strengthens climate resilience in Ethiopia and Somalia by empowering local institutions, pastoral and agropastoral communities, and cooperatives to manage rangelands and livestock more effectively under climate stress. It builds strong governance foundations through shared rangeland master plans, capacity building, and inclusive learning networks. Through upgraded national and regional EWSs, the project will build adaptive capacities of the vulnerable communities in the project locations by engaging them in regenerative rangeland restoration, water and forage development, and participatory monitoring to reverse degradation, and access to climate information. Climate-smart livestock practices, digital advisory tools, and inclusive value chains improve productivity and incomes.

At the regional level, coordinated platforms, interoperable early warning systems, and financial innovations support cross-border risk management. In general, these actions create a coherent, community-driven system that enhances ecosystem health, strengthens livelihoods, and supports long-term climate resilience.

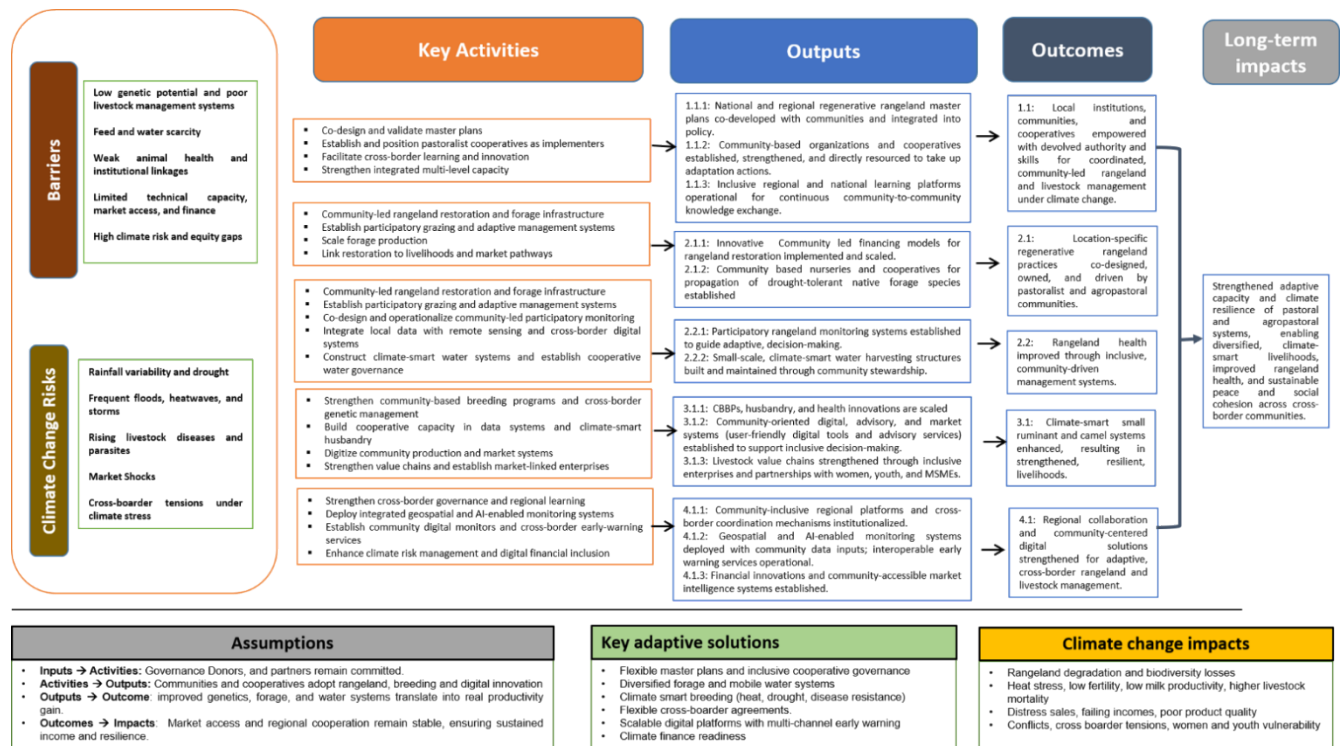


Figure 3: Project theory of change

This proposal constitutes a regional adaptation intervention jointly implemented in Ethiopia and Somalia and is distinct in scope and function from national projects. The regional project focuses exclusively on transboundary climate risks, shared dryland systems, and regional public goods that cannot be effectively addressed through a single-country intervention. Its scope is limited to cross-border governance, harmonized rangeland and livestock systems, interoperable regional digital and early warning platforms, regional CBBPs and coordination mechanisms facilitated by IGAD.

By contrast, national projects focus on country-specific service delivery, institutional embedding, and finance readiness within the countries, including national livestock health services, water point rehabilitation, fodder banks, national climate advisories, and integration into national NAPs, NDCs, and public finance systems. The regional project strengthens national projects by supporting finance readiness within the countries, including national livestock health services, water point rehabilitation, fodder banks, national climate advisories, and integration into national NAPs, NDCs, and public finance systems, through a specialized enabling support system including enabling access to finance for community based rangeland restoration, community forage nurseries development, and climate-smart water harvesting structures. This regional initiative is therefore complementary to national projects, with regional efforts establishing enabling systems and standards that are subsequently applied and institutionalized at the national level. Component 2 combines national-scale pastoral infrastructure investments with regional cross-border coordination systems, ensuring alignment with national priorities while establishing transboundary pastoral governance standards. Complementing these national investments, Component 2 also establishes regional enabling systems and cross-border standards that operationalize harmonized pastoral management across Ethiopia-Somalia shared corridors. These include participatory rangeland monitoring systems combining community data with remote sensing to guide adaptive decisions; cross-border digital monitoring platforms enabling coordinated action and early warning across shared pastoral zones; and harmonized grazing protocols and restoration practices

standardized across both countries' pastoralist communities. These regional public goods are financed through cross-border technical support and digital infrastructure and will be institutionalized through regional coordination mechanisms under Component 4, creating enabling conditions for national investments to operate coherently within a unified, transboundary pastoral governance framework.. This regional initiative is therefore complementary to national projects, with regional efforts establishing enabling systems and standards that are subsequently applied and institutionalized at the national level.

Somalia and Ethiopia: Underlined Problems

Somalia and Ethiopia face recurrent droughts, floods, and erratic rainfall that degrade rangelands, intensify water scarcity, and weaken livestock-based livelihoods. Pastoralists, agro-pastoralists, women, and youth are most affected, facing livestock losses, declining productivity, and deepening poverty. These climate pressures are compounded by weak husbandry systems, poor veterinary services, limited finance and market access, and fragmented institutional coordination.

This regional project addresses these challenges through four integrated components that deliver concrete climate adaptation actions. It promotes climate-smart livestock systems by scaling adaptive breeding, feeding, and animal health innovations for small ruminants and camels' species best suited to drylands. Regenerative rangeland management and water harvesting systems restore degraded ecosystems, improve forage and water availability, and reduce drought vulnerability. Digital monitoring and GeoAI-based early warning tools provide real-time data on rangeland conditions, disease, and climate risks, enabling faster and evidence-based decision-making. Inclusive market systems and access to finance strengthen the economic resilience of women, youth, and cooperatives through value addition, traceability, and digital financial services.

The regional approach creates added value by harmonizing rangeland and livestock management across borders, linking early warning and market systems between Ethiopia, and Somalia. Shared digital platforms, cross-border breeding programs, and joint policy frameworks ensure consistent standards, reduce duplication, and foster collective action against transboundary climate threats. This integration not only lowers adaptation costs but also enhances data interoperability, resource sharing, and regional trade. Overall, these coordinated regional interventions build resilience at scale, i.e., restoring ecosystems, stabilizing livelihoods, and strengthening institutions to shift communities from crisis response to proactive, climate-informed adaptation and long-term regional stability.

Component 1: Institutional and Technical Capacity Strengthening

This component forms the foundation of the project, addressing the weak institutional capacity, fragmented governance, and limited technical expertise that have hindered effective rangeland management and livestock innovation in Ethiopia and Somalia. It builds the institutional and technical backbone for long-term climate resilience through three priorities: (i) developing and mainstreaming climate-smart rangeland masterplans; (ii) strengthening cooperatives and community organizations to manage resources, represent local interests, and evolve into viable business hubs; and (iii) promoting multi-level knowledge exchange for continuous learning and cross-border coordination. Under this regional project, institutional strengthening is limited to cross-border coordination, harmonized rangeland governance frameworks, and regional learning mechanisms, and does not finance national institutional reform, staffing, or service delivery functions.

By transforming cooperatives into drivers of enterprise, service delivery, and market access, this component enhances governance while creating opportunities for income diversification, employment, and investment. It underpins the success of ecological restoration (Component 2), production and market innovations (Component 3), and regional digital collaboration (Component 4), ensuring that all interventions are coherent, scalable, and grounded in evidence-based decision-making.

Implementation Arrangements: ATI (Ethiopia) and East-Agro (Somalia) will lead masterplan development and cooperative strengthening. UNIDO will provide capacity building for the local institutions, technical support CBOs and cooperatives, while ICARDA delivers scientific evidence in

strengthening the development of the masterplan and institutional capacity building programs. Local institutes, cooperatives, and NGOs will ensure community-led implementation and sustainability at the grassroot level. This component will be implemented through collaboration with the countries counterpart including the MoLFR (Somalia) and MoA (Ethiopia)..

Outcome 1.1: Local institutions, communities, and cooperatives empowered with devolved authority and skills for coordinated, community-led rangeland and livestock management under climate change.

This outcome strengthens the technical and governance capacity of institutions, cooperatives, and communities to plan and manage rangeland and livestock systems sustainably. By aligning national masterplans with devolved local authority and regional knowledge exchange, it promotes coordinated, community-led action, reduces institutional fragmentation, and builds long-term climate resilience.

Output 1.1.1: National and regional regenerative rangeland master plans co-developed with communities and integrated into policy.

Rangeland master plans prevent fragmented rehabilitation by integrating rotational grazing, livestock mobility, and dryland restoration into climate-smart national and cross-border frameworks.

These master plans address shared rangeland systems and cross-border mobility corridors and are distinct from national rangeland and livestock strategies. Co-developed through assessments, mapping, and stakeholder consultations, they ensure coordinated, sustainable, and long-term action. Key activities include:

- Co-design and validate national and regional master plans of coordinated management and investment planning of border rangeland zones where herds migrate seasonally: conduct baseline assessments and spatial mapping, followed by inclusive consultations with ministries, IGAD, ATI (Ethiopia), East-Agro (Somalia), research institutions, cooperatives, and pastoralists, and finalize through national and regional validation workshops.
- Integrate Master Plans into National and Cross-Border Policy Frameworks: Facilitate formal adoption of the validated regenerative rangeland master plans into national adaptation, development, and cross-border coordination frameworks to guide locally led rangeland governance and implementation.

Output 1.1.2: Community-based organizations and cooperatives established, strengthened, and directly resourced to take up adaptation actions.

This output empowers pastoralist cooperatives and community organizations to participate in inclusive governance, rangeland restoration, and livestock innovations, while managing community-driven data to support sustainable, locally owned climate adaptation across the region. Key activities include:

- Strengthen and professionalize cooperatives: establish and build the capacity of pastoralist cooperatives through training in governance, leadership, finance, and business planning. Ensure inclusive participation of women and youth and provide practical manuals and toolkits to embed best practices.
- Position cooperatives as local implementing partners: Empower cooperatives and community organizations to lead rangeland restoration, livestock pilots, enterprise development, and digital data collection through structured mentorship and market-linked operational support.

Output 1.1.3: Inclusive regional and national learning platforms operational for continuous community-to-community knowledge exchange.

Peer-to-peer and cross-border exchanges, pastoral field schools, and the annual Pastoralist Innovation Forum will enable communities to share lessons, scale innovations, and harmonize rangeland, livestock, and digital solutions across Ethiopia and Somalia. Key activities include:

- Facilitate community-to-regional learning: Support peer-to-peer and cross-border Ethiopia–Somalia exchanges, annual Pastoralist Innovation Forums, and Pastoral Field Schools.
- Document local innovations in case studies and toolkits to enable continuous, community-led learning and scaling of climate-smart rangeland and livestock practices.
- Strengthen multi-Level capacity and knowledge integration: Build governance and technical capacities from community institutions to national ministries, ensuring all knowledge-sharing systems are aligned with rangeland restoration (Component 2), livestock innovation (Component 3), and digital monitoring (Component 4) for coherent, harmonized, and locally led but regionally implemented programs.

Component 2: Community-based and inclusive rangeland resource management

Building on Component 1, this component restores degraded rangelands, secures water for communities and livestock, and promotes equitable grazing governance. Restoration combines natural regeneration, drought-tolerant reseeding, rotational grazing, and erosion control. Women and youth lead forage propagation, while community monitors use digital tools for adaptive management. Climate-smart water systems enhance access. These actions stabilize feed and water, reduce livestock losses and conflict, improve soil productivity, and accelerate adoption of harmonized restoration practices across shared drylands.

Implementation arrangements: ATI (Ethiopia) and UNIDO and East-Agro (Somalia's Executing Entities) will lead rangeland, forage, and water management, with technical counterpart ministries, including MoLFR (Somalia) and MoA (Ethiopia) for rangeland and forage management, and MoAI (Somalia) and MoA (Ethiopia) for water infrastructure, ensuring sectoral coordination and policy integration. ICARDA will provide science and digital tools (satellite monitoring, GIS analytics, climate modelling), regenerative rangeland management and rangeland health monitoring, and coordinate with local research institutes. Cooperatives, customary institutions, and NGOs will manage restoration activities, grazing protocols, and forage nurseries, ensuring inclusive, sustainable, and market-linked dryland livelihoods.

Outcome 2.1: Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.

This outcome enables pastoralist and agro-pastoral communities to restore and manage rangelands using science-informed practices adapted to the specific localities, while leveraging indigenous knowledge to ensure sustainability of the adaptation solutions. Rotational grazing, reseeding, and erosion control improve soil, water, and pasture productivity, enhancing food security, drought resilience, and sustainable livestock livelihoods.

Output 2.1.1 Community led financing models for rangeland restoration implemented and scaled.

Communities co-design and carry out restoration activities, i.e., assisted regeneration, reseeding, rotational grazing, supported by soil and water conservation. RIPs and PFSs foster learning and link restoration to fodder and livestock markets. Key activities include:

- Inclusive Planning and Restoration of Rangelands: Communities will be facilitated to identify and prioritize restoration sites, implement assisted natural regeneration and reseeding of native forages and shrubs, and apply soil and water conservation measures such as half-moons, bunds, and micro-catchments.
- Establish Participatory Grazing and Adaptive Management Systems: Cooperatives and customary leaders will develop and enforce grazing calendars, manage seasonal resting

and rotation, and use regenerative innovation platforms (RIPs) for joint planning, monitoring, and adaptive learning.

- **Link Restoration to Livelihoods and Market Opportunities:** Regenerative agro-pastoral practices will be promoted, and restored rangelands will be connected to fodder production and livestock fattening enterprises, creating incentives and market pathways aligned with Component 3.

Output 2.1.2: Community based nurseries and cooperatives for propagation of drought-tolerant native forage species established.

Local communities, cooperatives, and women's and youth groups will be engaged to propagate native drought-tolerant forage species in locally managed nurseries. These forages will be distributed across restored rangelands to enhance dry-season feed availability and strengthen the climate resilience of livestock-dependent households. Key activities include:

- **Establish and manage community-based forage nurseries:** Set up nurseries run by cooperatives, women's groups, and youth to propagate native drought-tolerant forage species.
- **Expand forage production across rangelands:** Provide training in seed collection and forage management and scale distribution of improved forage to support local grazing and dry-season feed reserves.

Outcome 2.2: Rangeland health improved through inclusive, community-driven management systems.

This outcome strengthens rangeland health and productivity through inclusive, community-driven management. Adaptive, data-informed practices, coupled with equitable water systems, restore ecosystems, support livestock growth, reduce mortality and distress sales, and help mitigate resource-based conflicts during droughts.

Output 2.2.1: Participatory rangeland monitoring systems established to guide adaptive decision-making.

This output establishes participatory rangeland monitoring that combines community observations with remote sensing. Trained monitors track rangeland, water, and livestock conditions, sharing data via dashboards to guide adaptive decisions and align Ethiopia–Somalia systems under Component 4 for locally led, evidence-based management. Key activities:

- **Co-define and collect locally relevant rangeland data through community monitors:** Communities, cooperatives, and technical partners will jointly identify priority indicators and train/equip community rangeland monitors to collect standardized field data using mobile apps, GPS tools, and AI-assisted systems to track pasture, water, and herd conditions.
- **Integrate local and regional data with remote sensing and co-design adaptive dashboards:** Community observations will be combined with satellite and UAV imagery, and local institutions will co-develop simple, user-friendly dashboards that visualize trends and support locally led adaptive decisions such as rotational grazing, feed reserves, or early water mobilization.
- **Operationalize a cross-border digital monitoring platform for coordinated action:** Local data and dashboards will feed into the regional platform under Component 4, enabling alerts, early measures, and harmonized monitoring protocols across shared Ethiopia–Somalia corridors to strengthen cross-border learning and coordinated rangeland management,

Output 2.2.2: Small-scale and climate-smart water harvesting structures built and maintained through community stewardship.

Water scarcity threatens livestock, rangelands, and livelihoods. This output enables vulnerable communities, with local authorities and cooperatives, to plan, build, and maintain small-scale, climate-smart water harvesting structures, strengthening resilience and protecting fragile ecosystems. Key activities include:

- Co-identify and construct climate-smart water harvesting systems through participatory planning: Communities and local authorities will jointly identify priority sites and construct small-scale, climate-smart water systems such as micro-basins, ponds, sand/subsurface dams, and solar-powered lifting systems designed to enhance pasture recovery, improve herd health, and reduce ecosystem pressure.
- Improve livestock welfare through locally responsive water point design: Technical partners and communities will co-design features such as shaded waiting areas and strategically located troughs to reduce heat stress, manage livestock flow, and minimize trampling and evaporation, ensuring systems are suited to local pastoral needs.
- Establish inclusive, cooperatives-led water governance and maintenance systems: Cooperative-based water-user groups will manage access, fees, and routine maintenance, integrating customary norms, transparent recordkeeping, equitable participation of women and youth, and conflict-sensitive practices to ensure sustainable and peaceful use of water points.

Component 3: Innovative and inclusive livestock production for resilient livelihoods

This component turns the ecological and institutional foundations built earlier into climate-resilient livelihood gains. The marginalized and vulnerable communities and MSMEs will lead breeding, fattening, and value-addition activities, supported by local potential partners. Under the regional project, support is limited to regional and cross-border dimensions of livestock innovation, including harmonized breeding standards, cross-border sire exchange, shared digital traceability systems, and regional learning among CBBPs; country-level herd health delivery, vaccination campaigns, aggregation hubs, and national commercialization are not financed under this component and are instead supported through national projects.

Implementation arrangements: ICARDA will provide scientific evidence-based best practices and digital tools (satellite rangeland monitoring, climate modelling, GIS analytics), while UNIDO leads the development and operationalization of value addition and aggregation facilities across both countries. In Ethiopia, ATI will ensure inclusion and enterprise support; while in Somalia, UNIDO and East-Agro (Somali EE) will lead inclusion and enterprise support, working with the Somali Chamber of Commerce, cooperative federations, and accredited Somali NGOs to embed market linkages and livelihood diversification. IGAD will coordinate cross-border standards and pastoral certification protocols. This coordination approach ensures delivery of vulnerable communities and local institutions' driven, climate-smart livestock and rangeland systems that strengthen community and ecosystems resilience, with implementation anchored in each country's institutional capacity and partner networks.

Outcome 3.1: Diversified climate-smart small ruminant and camel systems strengthen livelihoods.

Adaptive breeding, inclusive innovations, and market linkages boost productivity, incomes, jobs, and resilience to climate shocks.

Output 3.1.1: Community-based breeding programs (CBBPs), husbandry, and health innovations are scaled.

The project will establish CBBPs to produce climate-resilient animals with improved growth, milk yield, fertility, and disease resistance. Cooperative-managed flocks, supported by DTREO tagging and data systems, supply improved sires locally and across borders. Cross-border sire exchange and harmonized breeding protocols supported under this output are designed to complement, but not duplicate, national

CBBPs and livestock productivity investments. Feed resources developed in one country could be traded in the other, fostering regional integration and expanding market opportunities. Training in feeding, reproduction, health, and early-warning systems supports the long-term sustainability of community-led breeding programs. This output will be achieved through the following key activities.

- **Expand Inclusive CBBPs:** Pastoral and agropastoral communities, including women- and youth-led groups, will jointly define breeding objectives and manage nucleus flocks for sheep, goats, and camels, ensuring access to climate-resilient animals and strengthening locally led cross border breeding systems.
- **Strengthen Cooperative Data Systems and Sire Dissemination:** Cooperatives will be trained in tagging, recordkeeping, and use of the DTREO platform for genetic evaluation. Structured local and cross-border sire exchange and rotation across Ethiopia and Somalia will help maintain genetic diversity and reduce inbreeding risks.
- **Build Community Capacity in Climate-Smart Husbandry and Health Services:** Communities will receive training in feeding, reproduction, animal health, and camel husbandry. Locally relevant drought, heat, and disease early-warning information, combined with investments in forage and water, will support adaptive, climate-resilient livestock production across the region.

Output 3.1.2: Community-oriented digital, advisory, and market systems are established to support inclusive, data-driven decision-making.

Digital tools provide traceability, real-time market and climate information, and early-warning for disease and rangeland conditions. Aggregation centers improve storage, grading, and product quality, while youth enumerators generate reliable data, enhancing cooperative credibility and expanding market access. Key activities include:

- **Promoting digitize community level breeding production systems:** Introduce mobile applications for recording breeding, production, and sales data, linked to a traceability and tagging system that enhances transparency, supports predictive decision-making, and strengthens buyer confidence in domestic and export markets.
- **Strengthening digital market and information systems:** Establish a digital market information system with real-time dashboards on prices, demand, and climate conditions. Youth enumerators will manage data entry and provide digital services at community level, improving data reliability and creating livelihood opportunities.
- **Upgrade aggregation and early-warning infrastructure:** Develop or improve aggregation centers with bulking, grading, chilling, and storage facilities, located near restored rangelands and water points. Integrate disease surveillance and rangeland monitoring data into the digital platform to enhance adaptive management and early warning for producers and cooperatives.

Output 3.1.3: Livestock value chains strengthened through inclusive enterprises and partnerships with women, youth, and MSMEs.

Women, youth, MSMEs, and cooperatives will lead livestock enterprises in meat, milk, hides, feed, and eco-tourism. Participatory planning, mentorship, and digital finance tools will improve access to credit and climate funds. Local processing, regional sire exchanges, and harmonized grading will enhance market access, investment, and climate-resilient livelihoods. Key activities include:

- **Support community-based livestock enterprises:** Enable women, youth, MSMEs, and cooperatives to establish and grow livestock enterprises (milk and meat processing, hides and skins, feed, eco-tourism, and livestock services) through participatory business planning, mentorship, and digital finance tools.

- Strengthen processing and market systems: Embed processing facilities near aggregation hubs to reduce costs and losses, meet hygiene and export standards, and enhance competitiveness through regional sire exchanges and harmonized health and grading standards.
- Build partnerships and market linkages: Promote South–South learning, exchange visits, and business-to-business linkages, while fostering PPPs with ICT firms, banks, agribusinesses, and UNIDO-supported infrastructure to expand investment flows, improve market access, and sustain innovations.

Component 4: Regional Cooperation and Digital Innovations for Early Warning Systems

Component 4 delivers regional public goods by strengthening cross-border cooperation, interoperable digital systems, and regional early warning services across Ethiopia and Somalia. It does not finance national early warning dissemination, insurance payouts, or country-specific climate information services. The focus here is on data interoperability, regional GeoAI platforms, and IGAD-led coordination mechanisms that enable coherent cross-border action.

Implementation arrangements: IGAD leads regional policy coordination, ATI, East-Agro and ICARDA drive digital and AI-based monitoring, while national ministries, local cooperatives, research institutes, and pastoralist groups support data collection, alignment, and community engagement.

Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management.

Rangeland and livestock management in Ethiopia, Somalia, and the IGAD region suffers from fragmented policies, weak cross-border coordination, and isolated early warning systems. This outcome strengthens regional collaboration, deploys interoperable digital tools linking early warning with market and financial services, and enables evidence-based, proactive management that reinforces restoration, productivity, and community-led actions.

Output 4.1.1: Community-inclusive regional platforms and cross-border coordination mechanisms institutionalized.

The project will convene Ethiopia–Somalia–IGAD dialogues and establish joint monitoring committees for shared rangelands and livestock corridors. Annual forums, policy dialogues, and South–South exchanges will harmonize adaptation strategies, reduce transboundary conflicts, build trust, and promote coordinated dryland practices across borders. Key activities include:

- Strengthen cross-border governance and policy alignment: Convene Ethiopia–Somalia–IGAD dialogues and joint monitoring committees with pastoralist representation and hold annual forums to harmonize adaptation strategies and reduce conflict risks.
- Enhance participatory regional learning: Support exchange visits and south–south learning for cooperatives, women's and youth groups, extension agents, and policymakers to share and scale community-led dryland practices.

Output 4.1.2: Geospatial and AI-enabled monitoring systems deployed with community data inputs; interoperable early warning services operational.

This output integrates satellite and community data for real-time monitoring of rangelands, water points, and livestock movement. Youth and cooperatives act as digital monitors, while interoperable data-sharing between Ethiopia and Somalia enables timely alerts and coordinated cross-border action. Key activities include:

- Deploy integrated geospatial and AI-enabled monitoring systems: Apply ArcGIS, QGIS, and Google Earth Engine to map grazing routes, water points, and mobility corridors, and use AI analytics to merge community field data with satellite indicators (MODIS, Sentinel, ASIS,

VCI/VHI) for real-time rangeland and drought monitoring. The detailed governance structures, regional data protection protocols, and data ownership frameworks will be undertaken during the PFG phase. This concept note establishes the foundational principle and institutional partnerships. The full operationalization of governance architecture, including data stewardship arrangements, inter-institution coordination protocols, and regional data-sharing agreements, will be finalized during project formulation when detailed technical and fiduciary assessments can inform robust, context-appropriate design.

- Train community digital monitors and operationalize interoperable early-warning services: Train youth and cooperatives as digital rangeland monitors and establish Ethiopia–Somalia data-sharing protocols to deliver real-time alerts and support coordinated early actions at community level.

Output 4.1.3: Financial innovations and community-accessible market intelligence systems established.

Index-based livestock insurance and digital market platforms will provide drought protection and connect pastoralists to buyers, credit, and market information, reducing climate and market risks and strengthening commercialization pathways. Key activities include:

- IBLI for Drought Protection: Deploy Index-Based Livestock Insurance (IBLI) using NDVI/forage indices to protect pastoralist households from drought-related livestock losses and reduce climate vulnerability.
- Digital Market and Finance Platforms: Establish community-accessible systems such as LMIS and agri-fintech platforms (DigiFarm, FarmDrive) to link producers with buyers, credit, and financial services, strengthening market access and commercialization.

Project coordination and monitoring

The effective coordination across multi-country and multi-component activities requires a tiered, geographically distributed coordination structure. Thus, a Regional Program Coordination Unit (R-PCU) led by UNIDO and hosted in the ICARDA Campus in Addis Ababa, leveraging existing institutional infrastructure, secure connectivity, and neutral regional positioning. The R-PCU will be mirrored by National Project Coordination Units (N-PCUs) in Ethiopia (hosted by ATI) and Somalia (hosted by UNIDO and East-Agro as joint Executing Entities), with the Mogadishu N-PCU operating under NCF oversight as specified by counterparts.

Coordination Architecture: The R-PCU coordinates strategic alignment, cross-border workplan harmonization, and IGAD liaison. Each N-PCU Unit manages in-country inter-ministerial coordination, stakeholder engagement, and activity sequencing within their respective government structures and federal/state contexts. Monthly coordination forums link the R-PCU with both N-PCUs to resolve bottlenecks, share lessons, and sequence activities for maximum synergy. The R-PCU office serves as the direct operational focal point to UNIDO as the Implementing Entity, providing consolidated program reporting, consolidated workplan oversight, and consolidated monitoring dashboards. Each N-PCU head (ATI in Ethiopia; UNIDO-East-Agro designated coordinator in Somalia) reports functionally to the R-PCU officer while maintaining institutional accountability to their host ministry/EE. This three-tier structure ensures that national sovereignty, federal/state coordination requirements, and cross-border harmonization are all operationalized without fragmenting program coherence.

Monitoring and evaluation will be embedded throughout the program to strengthen accountability, adaptive learning, and community ownership. A results-based framework will track progress using quantitative indicators (e.g., restored hectares, households adopting improved breeds, cooperatives registered) and qualitative measures (e.g., inclusiveness, governance quality). Digital dashboards and geospatial tools will enable real-time monitoring of rangeland conditions, livestock performance, and market participation, supporting rapid decision-making from community to regional levels. Mid-term and final independent evaluations will assess overall impact, while participatory monitoring involving

cooperatives, women's and youth groups will ensure transparency and reinforce locally led adaptation at the grassroots level.

A. Programme/Project contribution to new and innovative solutions, approaches, technologies and mechanisms for climate change adaptation

The project has been developed to promote innovation and disseminate technological solutions to combat vulnerability facing agro-pastoral and pastoral communities in past Ethiopia and Somalia and build their resilience to climate change. It draws on multiple synergies and mechanisms that foster inclusive participation of the target beneficiary communities, regional bodies and technology providers to bring about change.

Innovative mechanisms for inclusive uptake of climate-smart adaptation technologies and solutions

Addressing structural inequalities: The project directly addresses the historical exclusion of women, youth, and marginalized people. This builds on obligatory leadership quotas for women and youth on cooperatives, the formation of women centric and youth focused CBBPs, and gender-transformative practices. Pastoral Field School (PFS) empowers women in leadership, encourage shared decision making, equalize access to resources, support economic empowerment, foster trust and community building. There is specific outreach for small grants to these groups to make it easier for them to participate and to ensure that they benefit from and contribute to the planning of adaptation, while reducing power imbalances currently in place. Furthermore, community-based organizations (CBOs) and cooperatives will be facilitated to implement rangeland management, breeding programs, and enterprise development.

Country specific and regional context based PFS curricula will be co-developed with both countries' pastoralists, herder associations, customary leaders, and clan governance representatives, ensuring the content reflects national and regional pastoral knowledge systems, rangeland management practices, and clan-based resource governance arrangements. The PFS materials will be delivered in local languages relevant to the project locations (i.e. Somali, Afan Oromo, and South Omotic) with locally adapted modules on water management, drought-resilient forage production, and livestock mobility corridors specific to Somalia's agro-ecological zones and pastoral institutions. Community and clan opinion leaders' voices and indigenous best practices will be integrated from the outset to enrich the project implementation strategy. Detailed curricula co-development protocols, training-of-trainer arrangements, and local languages-based resource materials preparation plan will be finalized during the PFG phase in direct partnership with both countries implementing partners and community stakeholders.

Investing in local capabilities to leave an institutional legacy: The subproject 1 of the initiative is aimed at strengthening local capacities. Strengthening cooperatives as viable business centers, training community rangeland monitors and institutionalizing knowledge through Pastoral Field Schools and Regenerative Innovation Platforms (RIPs) allows the project to deliver the skills, institutions and knowledge systems required for sustained adaptation beyond the life of the project.

Building a robust understanding of climate risk and uncertainty: The project utilizes both indigenous wisdom and scientific information to develop an integrated view of climate risks. Village-based rangeland monitoring yields verified data, which is combined with GeoAI, satellite imagery and seasonal forecasting. Together, these components guarantee that early warnings and adaptation measures are scientifically rigorous and relevant to the context, bridging the divide between global climate models and local realities.

Flexible programming and learning: The project is designed to be managed adaptively. Knowledge exchange platforms and the once-a-year Pastoralist Innovation Forum create spaces for ongoing feedback and learning. These small grants facility seeks to be responsive to the needs of communities,

enabling them to adjust strategies in response to realities on the ground, and to remain flexible in the face of changing conditions or new information.

Ensuring transparency and accountability: Transparency is an important element in the governance of resources. PGRCs have a transparent grant award process. Training in financial management and record-keeping is provided to cooperatives and water-user groups at the community level, to foster fair and accountable management of resources. Livestock value chain process and project status are available with the digital traceability and dashboard systems for every stakeholder.

Collaborative action and investment: The project supports the involvement of multiple stakeholders. It strengthens cross-border collaboration through IGAD-led platforms, promotes public-private partnerships for value chain development and fosters peer learning among pastoral communities. This regional approach enables coordinated investments and the leveraging of collective knowledge and resources, to achieve greater impact.

Innovative solutions within regional, locally guided context

Among the innovations promoted by the project are specific regional dryland adaptations based on indigenous know-how:

Regional Digital Public Goods: The digital platform (Component 4) provides regional public goods with integrated early warning, market information, rangeland monitoring and extension advisory services. By being interoperable between Ethiopia and Somalia it contributes to reducing duplication, cost and serves as a common resource for cross-border pastoralism and trade.

Decentralized Genetic Innovation: The development of CBBPs for small ruminants and camels is a pioneering approach that empowers pastoralists to actively participate in shaping genetic improvement efforts. The regional sire exchange promotes sheep and goat biodiversity, and the establishment of a cross-border genetic pool is instrumental for climate resilience.

Blended Finance for Local Entrepreneurs: The project links Index-Based Livestock Insurance (IBLI) and digital marketplaces to a small grants' mechanism, forming a strong package for climate risk management and market access. This methodology helps to de-risk investments for local micro, small, and medium enterprises (MSMEs), while establishing a climate-resilient local economy. Regenerative Innovation Platforms (RIPs) – They represent a novel governance model based on co-learning and co-management between herders, scientists, and local authorities that ensures adaptation actions are informed both by local knowledge and scientific research.

One-Stop Shop (OSS): It act as central hubs where pastoralists and agro-pastoralists can access climate resilient inputs (e.g. forage seeds, veterinary drugs etc.) and knowledge needed to adjust their practices to the changing climate conditions. This innovation, which is proven in Ethiopia, will be scaled to Somali.

Pastoral Field School (PFS): This innovative extension approach driven from the proven farmers field school approach is a community based hands-on learning approach that builds the capacity of pastoralists for group-based collective action such as community-based rangeland management, empowers women, promotes sustainable and locally relevant production practices.

Livestock Commercialization Clusters: This is geographically focused market driven approach for prioritized livestock commodities aiming to increase production, productivity, and market linkages.

The project is rooted in a Locally Led Adaptation principles, guiding the project to deliver appropriate, just and lasting climate resilience by recognizing pastoral and agro-pastoral communities in the Horn of Africa as agents of change and providing them with agency, resources and knowledge.

Innovative financing for climate adaptation technology solutions

Through a dedicated small grants mechanism, the project provides direct and flexible financial assistance to communities for cross-border, regional, or multi-country actions. To foster inclusive access to this grant facility, Participatory Grant Review Committees (PGRCs) will be formed at the community level to award a limited number of grants, for climate adaptation solutions placing funding decisions in the hands of those that know their communities best. The streamlined applications procedures, oral submissions, and milestone-based payouts are meant to be in tune with the rhythm and needs of local adaptation. This creates a sustainable financial pipeline for local innovation beyond short-term project funding.

While the Concept Note defines the core governance, eligibility, and decision-making arrangements, further procedural details will be refined in subsequent review rounds in line with AF Secretariat feedback.

Facilitating inclusive access to finance: To ensure fair and meaningful participation, the project will implement a robust outreach strategy that challenges barriers for local groups, including women, youth, pastoralist groups, and marginalized communities: Grassroots Outreach Efforts: The Program Coordination Unit (PCU) in partnership with Community-Based Organizations (CBOs) and cooperatives from Component 1, will conduct targeted outreach. This strategy will involve: Community Assemblies: Conducting local language meetings to explain the grant opportunity, highlighting feasible adaptation actions such as water harvesting and community nurseries. Dedicated Outreach to Women and Youth: Collaborating with women's associations and youth groups to hold separate sessions, ensuring their input is prioritized during discussions. This approach addresses barriers related to literacy, mobility, and cultural norms. Mobile Registration and Support: Employing youth enumerators and extension agents to visit remote pastoral areas for interest registration and initial guidance.

Process for awarding small grants: Transparency and participation in the process of awarding the grant and focus on the local agency. The timeline will be developed within the framework of work on the overall project, to provide two grant cycles of learning and adjustment. Modus: In each designated region a Participatory Grant Review Committee (PGRC) will be constituted comprising local government, traditional leaders and elected members from community cooperatives, which will be inclusive of women and youth. The constitution and mandate of the PGRC provides a practical demonstration of devolved authority under the LLA framework, as funding decisions are taken by locally embedded actors with contextual knowledge of climate risks, social dynamics, and customary governance systems. UNIDO and the PCU serve strictly as facilitators and technical secretariat support, without voting rights, ensuring that authority over prioritization and selection rests at the local and cross-border level. UNIDO and the PCU shall provide facilitation and technical secretariat support, non-voting. Evaluation criteria: Applications will be judged against transparent locally relevant criteria, with concise application forms in local languages and the option of transacting applications orally. These criteria will be among others: Climate Adaptation Relevance (40%) Relevance to climate related risks and vulnerability of the livestock and rangeland systems. Community Ownership and Participation (30%): Clearly demonstrates community participation in the design of the proposal, and that women, youth and other marginalized groups have identifiable benefits and roles in leadership. 20%) Feasibility: A believable workplan and budget, where simplicity is encouraged, and complex accounting is not necessary. Sustainability and Innovation (10%): Prospect that the activity sponsored by the grant will continue beyond the period of the grant or constitute a replicable, context-specific innovation. Schedule: A standard grant round will last approximately 4-5 months during which the following activities take place: promotion and support of the applications (2 months) Committee review and award (1-2 months), distribution and start of implementation.

Improving the quality of finance and governance: The small grants mechanism applies simplified fiduciary, reporting, and disbursement arrangements that are appropriate to grant size and community capacity, while maintaining accountability and transparency. To increase the availability and flexibility of finance, the project will: Apply the necessary modality: Provide grants in tranches based on demonstrated progress, balancing risk and trust. For certain minor activities, a single payment may apply. Streamline Reporting: Basic progress updates, photographs, community minutes, and financial

statements as proof of execution will be accepted, without requirement for comprehensive financial audits for small sums. **Delegate Decision-Making:** The PGRC's mandate facilitates funding decisions being made by those that know the local context, empowering local actors rather than international and national actors. **Small Grants Monitoring, Evaluation, and Learning (MEL).** The organization will put in place an efficient but simple MEL system as follows:

Results Management The existing digital monitoring system will be modified to monitor small grant outputs that will be linked to the overall project results framework. The MEL system is designed to reinforce locally led learning and adaptive management, enabling grantees to reflect on results, adjust activities in real time, and feed lessons into regional learning platforms without imposing extractive reporting burdens.

Community Monitoring: Grantees will also be trained in simple self-monitoring tools including the use of pictograms or basic checklists to keep track of their progress. **Learning and Sharing:** The knowledge sharing spaces will be used to promote learning and sharing of learnings.

B. Economic, social and environmental benefits

Economic Benefits

The project delivers substantial economic benefits by strengthening smart livestock systems that are designed, governed, and driven by pastoral and agro pastoral communities, reflecting the core intent of Outcome 3.1. Through CBBPs, producer units, fodder enterprises, and value addition hubs, households gain access to better genetics, improved veterinary services, and reliable feed supplies generated through restored rangelands. These interventions are expected to increase livestock productivity by 20 to 35 percent, leading to higher milk yields, improved weight gain, better survival rates, and stronger market competitiveness. Increased productivity directly enhances household incomes and strengthens asset bases, protecting families from the financial shocks of recurrent droughts.

Women and youth become central economic actors through their leadership in fodder production, milk processing, hide and skin value addition, and digital livestock services. These enterprises generate 12,000 to 15,000 jobs across the two countries, while stimulating micro and small businesses that anchor local economies. Market hubs equipped with chilling, grading, and storage systems reduce post-harvest losses, allowing producers to reach higher value markets. Under Outcome 4.1, the project strengthens digital advisory platforms, AI based alerts, and anticipatory action systems that are co-managed by community monitors, enabling households to make profitable and timely decisions on feeding, disease control, mobility, and marketing. Together, these community centered systems create more stable and diversified local economies, reduce the financial impacts of climate variability, and build long term economic resilience for the 220,000 participating households in the two countries.

Social benefit

Social benefits are anchored in the proposed intervention, ensuring that transformation is rooted in the knowledge, priorities, and leadership of the communities themselves. Under Outcome 1.1, the project strengthens cooperatives, rangeland governance committees, customary institutions, and producer organizations by providing them with the authority, tools, and decision-making structures needed to manage climate risks. These institutions guide planning processes, enforce community grazing regulations, coordinate water resource management, and oversee livestock and rangeland systems in ways that reflect local social norms and customary governance. This strengthens social cohesion and reduces disputes over natural resources, which are often exacerbated by droughts and resource scarcity.

Women and youth gain expanded roles in leadership, extension delivery, breeding groups, digital monitoring, and cooperative governance. Their increased participation not only shifts social norms but also broadens the pool of skills and knowledge available to manage climate related challenges. Community designed grazing calendars, bylaws, and Pastoral Field Schools promote a shared understanding of sustainable rangeland and livestock practices, enhancing trust and collaboration

among clans, ethnic groups, and border communities. Under Outcome 4.1, cross border dialogues and IGAD supported learning platforms strengthen collective decision making, harmonize grazing rules, and support peaceful mobility across Ethiopia and Somalia. These socially grounded, community driven processes create more stable, inclusive, and resilient communities that are better equipped to endure and adapt to climate shocks.

Environmental benefit

Environmental benefits of the project stem from community ownership of the restoration and sustainable management of rangelands, water resources, and grazing systems. Through Outcome 2.1, pastoral and agropastoral communities co-design and implement regenerative practices that restore 450,000 to 600,000 hectares of degraded drylands across both countries. These practices include rotational grazing, reseeding with native grasses, establishing enclosures, erosion control measures, constructing micro basins, and developing sand dams and water retention structures. These measures improve soil health, increase vegetation density, promote water infiltration, and reduce erosion, turning degraded landscapes into productive grazing systems. The project also strengthens biodiversity by revitalizing native species and creating healthier habitats for both livestock and wildlife.

Community rangeland monitors collect and interpret local data on vegetation, water points, and grazing conditions, supporting adaptive and timely management decisions. This ensures that environmental management remains grounded in local knowledge and responsive to early signs of degradation. Strengthening community governance and enforcement of grazing agreements reduces pressure on fragile ecosystems and prevents overgrazing. Under Outcome 3.1, improved herd efficiency, better feeding, and targeted breeding reduce the environmental footprint of livestock systems by lowering methane emissions intensity and improving carbon storage in soils and vegetation. Together, these measures create climate resilient landscapes that sustain pastoral livelihoods, support ecological integrity, and serve as natural buffers against droughts and climate related shocks.

C. Cost-effectiveness of the proposed project/programme

The proposed regional programme delivers high cost-effectiveness by leveraging economies of scale, reducing duplication of efforts, and creating shared systems that generate long- term cross-border benefits unattainable through isolated national projects. By aligning investments across Ethiopia and Somalia, the programme optimizes technical, financial, and institutional resources while addressing climate risks that transcend national boundaries.

Economies of scale and shared infrastructure: The establishment of joint digital platforms for geospatial monitoring, early warning, and market intelligence (under Components 2, 3, and 4) requires significant initial investment but yields large-scale efficiencies. Once established, these systems serve both countries simultaneously, expanding access to real-time climate and market data with minimal incremental cost. This shared infrastructure eliminates the need for each country to independently develop and maintain separate digital systems, substantially lowering per-user costs of adaptation services.

Harmonized regional planning and reduced transaction costs: The co-development of regional regenerative rangeland master plans and harmonized adaptation frameworks prevents policy fragmentation and duplication of effort. A single, integrated planning process, facilitated by IGAD, reduces transaction costs for national governments, donors, and implementing partners. It also ensures that interventions such as cross-border livestock mobility, disease surveillance, and resource management are coherent, mutually reinforcing, and financially efficient.

Shared technical expertise and capacity building: By pooling technical expertise and institutional resources, the programme achieves higher returns on capacity development investments. Regional training programs, digital learning hubs, and knowledge exchanges allow both countries to access innovations and best practices at lower marginal costs. Instead of funding multiple, parallel training and

research initiatives, the regional framework enables joint learning, resulting in faster technology transfer and improved institutional efficiency.

Cost-efficient technology deployment and procurement: The regional mechanism facilitates bulk procurement of equipment and services, such as water harvesting systems, regenerative inputs, and digital tools, achieving economies of scale and standardized quality control. This shared procurement and technical support network significantly lowers implementation and maintenance costs while improving system interoperability across borders.

Addressing transboundary risks through collective action: Climate-induced threats such as drought, rangeland degradation, and livestock disease spread are inherently regional. Addressing them through a unified system prevents inefficiencies caused by fragmented national responses. Through IGAD coordination, the programme enhances joint management of transboundary rangelands, water resources, and pastoral mobility corridors, reducing resource-based conflicts and the recurring costs of humanitarian response.

Leveraging public investment to attract private finance: The project's regional framework channels public funds into catalytic functions such as MSME support, financial innovation, and climate-risk insurance. These investments de-risk private sector participation, attracting additional capital for resilience-oriented enterprises. This blended financing approach multiplies the impact of each public dollar, advancing both adaptation outcomes and sustainable economic development.

Overall, the regional approach transforms isolated national adaptation efforts into a unified, cost-efficient system that generates shared value and long-term resilience across Ethiopia and Somalia. It maximizes returns on investment through shared infrastructure, coordinated governance, and collective knowledge systems, ensuring that every dollar spent delivers broader, more sustainable adaptation outcomes in Ethiopia and Somalia, which could be scaled across the Horn of Africa.

D. Consistency with national and sub-national and local SDGs

The project is designed to align with and support the national development and climate adaptation priorities of Ethiopia and Somalia, as well as the key regional frameworks. In Ethiopia, the programme fulfills the Climate Resilient Green Economy (CRGE) Strategy objectives by strengthening agricultural sector adaptation and promoting regenerative rangeland systems. It supports Ethiopia's Ten-Year Development Plan (2021 to 2030) by contributing to agricultural modernization, reducing livestock import dependence, and increasing export competitiveness. The project directly advances the National Livestock Master Plan through investments in climate resilient small ruminant and camel value chains, improved breeding services, traceability, and market entry systems. It contributes to Ethiopia's Nationally Determined Contribution (NDC 3.0) by promoting climate resilient agricultural practices, sustainable livestock management, and restored rangelands. It also aligns closely with the National Adaptation Plan (NAP) through interventions targeting sustainable land management, water harvesting, and resilience building in lowland arid and semi-arid areas.

In Somalia, the project supports the National Transformation Plan (NTP), which prioritizes inclusive economic growth, resilience to recurrent shocks, and strengthened natural resource governance. By improving pastoral and agro pastoral livelihoods and restoring rangelands, the project directly advances Somalia's long-term development and resilience objectives. It aligns with Somalia's third generation Nationally Determined Contribution (NDC 3.0) by scaling climate smart livestock production, rehabilitating degraded rangelands, and expanding drought tolerant forage systems. The project also contributes to Somalia's National Adaptation Plan (NAP) through its work on water harvesting, early warning systems, community based natural resource management, and drought risk reduction. In line with the Somalia Livestock Sector Development Strategy, the project strengthens small ruminant and camel systems, improves animal health services, enhances market access, and expands cross border livestock trade systems that are essential for national revenue generation. By supporting community centered governance structures, climate services, and anticipatory action tools, the programme also

reinforces Somalia's ambitions for decentralized, locally led adaptation as articulated in its national climate policies.

I. National Adaptation Plans (NAPs)

The project aligns closely with the National Adaptation Plans of both Ethiopia and Somalia. In Ethiopia, the initiative supports NAP priorities through climate resilient livestock development, sustainable land management, rangeland rehabilitation, and improved water harvesting in arid and semi-arid lowlands. By strengthening breeding programs, fodder systems, and adaptive management capacities of cooperatives, women, and youth, the project contributes directly to Ethiopia's goals for resilient rural livelihoods and sustainable natural resource use.

In Somalia, the project advances the NAP (2026–2030) by enhancing small ruminant and camel productivity, restoring degraded grazing areas, strengthening water access, and supporting climate resilient value chains. The intervention promotes locally led governance structures and builds adaptive capacity in pastoral and agro pastoral areas, reinforcing NAP priorities for resilient livelihoods and inclusive natural resource management in drought prone drylands.

II. Nationally Determined Contributions (NDC 3.0)

The project is strongly aligned with the NDC 3.0 commitments of both countries. In Ethiopia, it contributes to climate smart agricultural transformation, reduced land degradation, improved livestock efficiency, and strengthened climate information services. Restored rangelands, improved genetics, and sustainable forage systems all support Ethiopia's adaptation and mitigation targets under the NDC. In Somalia, the project supports NDC goals by strengthening climate smart livestock production, adaptive breeding, sustainable rangeland management, and enhanced value addition. Through digital advisories, anticipatory action tools, and risk management systems, the project reduces climate vulnerability and advances national priorities for resilient, low emission development in pastoral regions.

III. National Development Frameworks (Ethiopia's Ten-Year Perspective Plan and Somalia's NTP)

The initiative is aligned with Ethiopia's Ten-Year Perspective Plan (2021–2030), which emphasizes modernized agriculture, export growth, reduced import dependence, and climate resilient rural transformation. By improving livestock productivity, market readiness, and feed systems, the project directly supports Ethiopia's structural transformation objectives in lowland regions.

In Somalia, the project advances the National Transformation Plan (NTP 2025–2029) under Pillar 4 on Environment and Climate Resilience. It improves climate smart livestock systems, strengthens rural livelihoods, modernizes production systems, and enhances natural resource management. The intervention reinforces ongoing national efforts to integrate climate action into local development planning and promote inclusive economic transformation.

IV. Livestock and Rural Development Policies (Ethiopia's ARD Policy and Somalia's LSDS)

The project is fully aligned with Ethiopia's Agriculture and Rural Development Policy, which prioritizes sustainable land management, improved livestock production, community based natural resource governance, and rural enterprise development. By promoting improved breeding, rangeland regeneration, water management, and inclusive value chains, the project strengthens Ethiopia's goals for climate resilient and productive rural systems.

In Somalia, the project supports the Livestock Sector Development Strategy (LSDS 2020–2030) by modernizing small ruminant and camel value chains, expanding fodder and feed systems, improving animal health services, and enhancing value addition and market access. The initiative advances national ambitions to shift from low value live animal sales to a diversified, high value livestock industry. It also aligns with the forthcoming UN Sustainable Development Cooperation Framework for Somalia, especially outcomes on productive sector transformation and locally led climate resilience.

At the regional level, the programme serves as a practical implementation tool for Intergovernmental Authority on Development (IGAD) strategies, particularly the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI). The IDDRSI framework depends on four main components, which include transboundary rangeland management and regional knowledge sharing and harmonized early warning systems, and cross-border trade facilitation. The program supports Ethiopian Somali collaboration, which leads to better regional integration and unified climate risk management that supports both the African Union Agenda 2063 and Paris Agreement targets. The program operates under a multi-scalar framework that links national and regional sustainable development targets with climate adaptation initiatives to maintain consistency in existing development frameworks.

E. Relevant national technical standards and compliance with AF Environmental and Social Policy

The AgrInnova project is designed to meet all applicable Ethiopian and Somali technical, environmental, and social standards while achieving full compliance with the UNIDO's and AF's environmental and social policies. Additional safeguard studies will be conducted during the Project Formulation Phase. All infrastructure supported through AgrInnova, including agricultural transformation centers, fodder storage units, small water harvesting structures, and climate-smart cold storage facilities, will conform to national building codes and engineering specifications as required by the construction works regulatory policies and guidelines of both Ethiopia and Somalia. Environmental compliance will be ensured through the existing national environmental impact assessment proclamation and in coordination with the respective national regulatory institutions. Project planning will integrate all required screening, permitting, and supervision protocols.

In accordance with AF requirements, the key safeguard instruments, including Environmental and Social Management Plan (ESMP), a Stakeholder Engagement Plan (SEP), a Gender Action Plan (GAP), and a Grievance Redress Mechanism (GRM), will be developed for both Ethiopia and Somalia..

During the full proposal phase, a comprehensive Environmental and Social Impact Assessment in line with the Adaptation Fund's Environmental and Social Policy will be conducted. This will identify site specific risks and define proportionate mitigation measures related to water use, rangeland conditions, biodiversity, climate impacts, and gender and social inclusion in both countries. Special attention will be given to ensuring that women, youth, pastoralist groups, and marginalized producers can participate meaningfully and benefit equitably from breeding, fodder, processing, and market interventions. Because Agrinnova strengthens existing communal systems and does not alter land access or relocate users, the project is free of involuntary resettlement risks. A Stakeholder Engagement Plan and a Gender Action Plan will be prepared to formalize inclusive participation, clarify responsibilities, and support transparent and equitable benefit sharing.

The project will also establish a clear and accessible Grievance Redress Mechanism at community and woreda levels. This mechanism will enable producers, cooperatives, and local institutions to raise concerns, seek timely responses, and ensure ongoing accountability throughout implementation. Safeguards, gender, and technical specialists will work together to oversee compliance and provide training to local partners, ensuring that engineering quality, environmental protection, and social equity advance in tandem. Through this integrated and locally grounded approach, Agrinnova ensures that climate smart livestock and rangeland investments are technically sound, environmentally responsible, socially just, and fully aligned with Ethiopia's national policies and Adaptation Fund standards.

F. Duplication of the project/program with other funding sources

The AgrInnova project is specifically structured to complement existing Adaptation Fund and donor-supported initiatives in Ethiopia and Somalia, while avoiding duplication. It builds on national priorities (NAP, NDC), applies Ethiopian technical standards and East African pastoral codes, and follows WOA and FAO guidance for animal health, feed systems, and value-chain safety. AgrInnova fills major gaps

that remain underfinanced in both countries, including climate-resilient breeding systems, community-led rangeland governance, small ruminant and camel productivity programs, regenerative dryland restoration, agrivoltaic-powered livestock processing centers, and market-linked MSME diversification.

Duplication is avoided through coordinated geographic planning with the World Bank, IFAD, AfDB, FAO, GIZ, USAID, and IGAD. Shared site maps, asset registries, and rangeland-use data will ensure that AgrInnova invests only in underserved pastoral areas with limited prior support. By integrating breeding, digital advisory systems, ecosystem management, and value-chain infrastructure, the program creates a unified climate adaptation pathway instead of fragmented interventions.

UNIDO will also follow a shared implementation approach across its regional and Somalia national proposals, while maintaining clearly defined and separate scopes. Clear operational boundaries, eligibility rules, and institutional roles ensure that no activity, beneficiary group, or investment is financed under both projects. Coordination mechanisms focus on information sharing and standards alignment, while financing streams remain strictly separated by geographic scope and function. A key added value of AgrInnova is its cross-border mandate, addressing transboundary rangeland systems, shared grazing corridors, water points, and livestock mobility routes between Ethiopia and Somalia. While most national projects remain within one country, AgrInnova strengthens harmonized animal health protocols, early warning systems, market standards, and rangeland governance practices across borders. It creates joint learning platforms linked to IGAD's IDDRSI, enabling Ethiopia and Somalia to share experience, synchronize policies, and co-manage climate risks that no single country can address alone.

In practical terms, AgrInnova complements adaptation efforts by expanding fodder and feed innovations, piloting agrivoltaic-powered processing hubs, strengthening digital traceability, and improving cross-border livestock trade. It leverages Ethiopia's advanced CBBP model and Somalia's digital service expansion to create a regional knowledge hub that supports planning, MRV, and climate-risk analytics for both countries. Through women- and youth-led cooperatives, the project drives inclusive enterprise development and long-term resilience in areas historically overlooked by mainstream agriculture and resilience programs.

Table 3: List of relevant programs in Ethiopia and Somalia and complementarity with AgrInnova

No.	Project / Program	Implementing / Executing Entity	Geography / Focus	Complementarity – Gaps AgrInnova Fills	Synergies – Multiplier Effects
1	Lowlands Livelihood Resilience Project (LLRP)	Government of Ethiopia, World Bank	Afar, Somali, Oromia, SNNP lowlands	LLRP focuses on broad resilience, community development, and multi-species livestock systems. Small ruminants and climate-smart breeding remain under-supported.	AgrInnova adds species-specific programs for sheep, goats, and camels, introduces GeoAI monitoring, and harmonizes cross-border mobility rules with Somalia.
2	PRIME (USAID, legacy)	Mercy Corps and partners	Ethiopia drylands (Borana, Somali)	PRIME strengthened markets but did not integrate digital traceability or climate-smart breeding.	AgrInnova advances PRIME's legacy through digital EWS, livestock traceability, regenerative grazing, and climate finance access.
3	Livestock and Fisheries Sector Development Project (LFSDP)	MoA, World Bank	Highland and mixed systems	Productive livestock support exists but limited focus on drought-tolerant species and dryland rangelands.	AgrInnova shifts focus to small ruminants and camel systems, integrates climate adaptation, and co-develops water-efficient feed systems.
4	Resilient Landscapes and Livelihoods Project (RLLP II)	MoA, World Bank	Highland watersheds	Strong watershed restoration but minimal pastoral rangeland support.	AgrInnova complements by scaling regenerative rangeland restoration in Ethiopia and Somalia's lowlands.
5	ACREI (Adaptation Fund – IGAD)	IGAD, ICPALD, FAO	Ethiopia-Kenya-Uganda (crop/CIS focus)	Climate information services exist but not adapted for livestock decision-making.	AgrInnova integrates CIS with livestock-specific alerts, mobility advisories, and rangeland condition analytics.
6	IFAD Climate-Resilient Agriculture (PACT, etc.)	IFAD, MoA	Ethiopia highlands and midlands	Crop-heavy; limited pastoral targeting.	AgrInnova targets pastoralists and dryland livestock systems; establishes digital knowledge hubs do not present in IFAD programs.
7	DRIVE (WB)	MoA, ILRI, private sector	Ethiopia pastoral regions	Focus on insurance and financial inclusion; limited breeding and rangeland work.	AgrInnova integrates insurance triggers with rangeland restoration, early warning systems, and adaptive breeding.
8	DRSLP (Afar, Somali)	AfDB, Irish Aid	Afar and Somali	NRM support but limited value-chain depth.	AgrInnova strengthens processing, traceability, market hubs, and regenerative grazing.
9	UNIDO Livestock Value Chain Upgrading	UNIDO, China	Ethiopia national	Focus on quality infrastructure, not climate adaptation.	AgrInnova strengthens climate-resilient feed, water, and genetic systems; links to UNIDO quality labs for certification.
10	Somalia Hal-abuur (IFAD)	IFAD, SADAR	Southwest, Galmudug, Puntland	Soil and ecosystem restoration for crops and agro-pastoralists; limited livestock focus.	AgrInnova extends adaptation to pastoral drylands; integrates restored ecosystems into productive livestock systems.
11	EARNSS (UNEP)	UNEP, SADAR	Shabelle Basin	Riverine NbS, wetland restoration.	AgrInnova complements by supporting surrounding drylands, linking flood resilience and drought resilience across basins.

12	Biyooley (World Bank)	FGS/FMS	Somalia water schemes	Climate-resilient water systems but limited integration with livestock value chains.	AgrInnova adds livestock water governance, digital monitoring, and climate-smart fodder systems.
13	AFCIA: Adaptation Fund Climate Innovation Accelerator	UNIDO	Multi-country (Africa-wide); value chains, agro-processing, climate-smart food systems	AFCIA focuses on climate-smart agro-processing, value-chain upgrading, and industrial food systems, but does not address transboundary rangeland governance, pastoral livestock mobility, or community-led dryland restoration.	AgrInnova provides upstream climate-resilient livestock production, rangeland restoration, and cross-border governance that strengthen AFCIA-supported value chains. Shared digital systems, standards, and UNIDO implementation platforms enable learning, scale, and policy coherence without duplicating investments.
14	SLLAS – Scaling Locally Led Adaptation in the Agriculture Sector (LLA Aggregator)	UNIDO	Global / multi-country; locally led adaptation in agriculture	SLAAS functions as a global LLA aggregation mechanism, channeling small grants to local actors through non-accredited entities, but does not target regional public goods, cross-border pastoral systems, or transboundary rangeland governance.	AgrInnova complements SLLAS by operationalizing communities' engagement at a regional and cross-border scale, demonstrating participatory decision-making, small-grants governance models, and learning systems for pastoral drylands. Lessons, tools, and institutional models generated by AgrInnova can inform and be scaled through SLAAS-supported national and local LLA investments, while avoiding duplication of grant financing.
15	Somalia livestock adaptation project	UNIDO	Somalia (national)	The Somalia national project focuses on country-specific service delivery and institutional embedding, including national livestock health services, vaccination campaigns, water point rehabilitation, fodder banks, climate advisories, index-based livestock insurance, and integration into Somalia's NAP, NDC, and public finance systems. These national-scale investments are not financed under AgrInnova.	AgrInnova complements the Somalia national project by providing regional public goods, including cross-border governance mechanisms, harmonized livestock and rangeland standards, interoperable digital and early warning systems, and cross-border CBBPs, enabling Somalia's national investments to operate more effectively within transboundary rangeland and livestock mobility systems.

G. Learning, knowledge management, and dissemination of lessons learned

The project treats learning as a central pillar, recognizing it as one of the key principles that strengthens community ownership, accountability, and long-term resilience. Learning is embedded from the beginning into planning, budgeting, and facilitation processes so that each breeding initiative, fodder enterprise, water structure, rangeland intervention, and value addition service becomes an opportunity to generate practical knowledge. Women and youth play a leading role by using simple participatory tools such as rangeland observation journals, water point trackers, and household reflection sessions to document seasonal changes, service quality, and livelihood outcomes. Their insights form the foundation for adaptive planning and strengthen the voice and agency of community institutions.

A digital learning and monitoring system complements community-based evidence. It captures geotagged investments, vegetation trends, livestock health data, climate advisories, and service utilization patterns across Ethiopia and Somalia. These data streams feed into a shared learning interface that helps cooperatives, extension workers, and district governments revise grazing calendars, improve water management, update business plans, and coordinate livestock mobility. Youth monitors and cooperative leaders receive training to interpret the information and use it to enhance governance and enterprise performance.

AgrInnova applies an adaptive learning approach to all innovations introduced by the project. Regenerative grazing models, digital traceability systems, agrivoltaic processing hubs, and youth led fodder businesses are treated as evolving practices guided by clear learning questions, community validation processes, and seasonal reviews. This allows interventions to be refined continuously and ensures that benefits remain equitable for women herders, cooperative leaders, and young livestock entrepreneurs.

The project translates learning into accessible products for different audiences. Communities receive illustrated guides, pastoral field notes, short videos, and audio lessons in local languages. Policymakers, technical agencies, and investors receive concise adaptation briefs, governance guidance, and regular updates that connect field insights to national planning processes. Cross border learning notes highlight how coordinated grazing rules, aligned animal health systems, and shared climate services enhance resilience across the Ethiopia and Somalia drylands. To enhance and ensure effective implementation and scalability of the adaptation solutions, the media of learning and communications will be pursued in local languages.

Knowledge is shared through multiple channels. Community learning groups meet regularly to review results and adjust workplans. District level review days enable local authorities to integrate evidence into extension strategies and resource management. IGAD supported exchanges facilitate regional learning and cooperation. Additional webinars, field demonstrations, and learning events expand reach to national and international audiences.

Finally, learning is systematically fed back into project governance through short learning logs, quarterly digests, and decision notes that track how evidence influences implementation choices. Ministries in both countries use these insights to refine NAP and NDC actions, strengthen rangeland rules, and integrate proven approaches into annual plans. Data privacy and community consent protocols guide information management, ensuring trust and accountability.

Through this approach, AgrInnova ensures that learning remains practical, inclusive, and locally driven, helping Ethiopia and Somalia build climate resilient livestock and rangeland systems grounded in community experience and adaptive knowledge.

H. Consultative process and stakeholders' roles

The planned regional project was conceived through a series of stakeholder consultations led by UNIDO, in partnership with the Agricultural Transformation Institute (ATI), the Ministry of Agriculture (MoA), and the National Designated Authorities (NDAs) of Ethiopia and Somalia. Initial discussions were held

virtually on 11 July 2025 with Somali government representatives, who identified national priorities around rangeland restoration, livestock productivity, value addition, and institutional capacity development. A follow-up regional meeting on 23 July 2025 brought together counterparts from Ethiopia's MoA, ATI, and MoPD, alongside UNIDO technical experts, to align project objectives with both countries' NAPs, NDCs, LT-LEDS, and national development strategies. These joint consultations established a shared understanding of the project's strategic relevance, regional scope, and governance arrangements, marking the formal initiation of the AgrInnova concept for submission to the Adaptation Fund.

The project was designed through a series of participatory local consultations held between 29 October and 9 November 2025 across three regional states of Ethiopia, i.e., Somali (Degehabur District), Southern Ethiopia (South Omo Zone, Bena Tsemay District), and Oromia (Borana Zone, Yabello District), and four regions in Somalia. In Ethiopia, these consultations, jointly facilitated by UNIDO and ATI in collaboration with local authorities, engaged 206 participants (101 men and 105 women), including pastoralists and agro-pastoralists, women and youth groups, cooperative members, extension agents, and traditional and clan leaders. Through inclusive dialogue and community-driven analysis, participants identified priority climate risks and adaptation needs specific to their contexts, including recurrent droughts, rangeland degradation, feed and water scarcity, and weak institutional systems. They also proposed locally appropriate solutions such as community-led rangeland restoration, forage development, climate-smart livestock systems, livelihood diversification, and women- and youth-led enterprises. The findings have directly shaped the programme design, ensuring that AgrInnova interventions are context responsive.

In Somalia, the project design was initiated through a consultative process led by UNIDO in partnership with the Ministry of Environment and Climate Change (MoECC), the National Climate Fund - NCF (AF-NDA), housed within the Ministry of Finance, the Ministry of Livestock, Forestry and Rangeland (MoLFR) and the Ministry of Agriculture and Irrigation (MoAI), and key regional stakeholders. The national consultation held on 11 July 2025 identified Somalia's priority adaptation needs around rangeland rehabilitation, livestock productivity, institutional capacity development, and value addition for livestock products. These priorities guided the subsequent series of community and institutional consultations conducted between 30 October and 7 November 2025 across Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland). The consultations engaged pastoralists, agro-pastoralists, cooperatives, women and youth groups, government representatives, and private sector actors, capturing local experiences of drought, flood, and rangeland degradation. Participants emphasized the need for water-harvesting infrastructure, cooperative strengthening, gender- and youth-responsive adaptation platforms, and digital early-warning and market systems. The insights gathered through these participatory processes have been fully integrated into Somalia's component of the AgrInnova Programme, ensuring that project interventions are community-driven, locally prioritized, and aligned with Somalia's NAP, NDC, and national climate resilience strategies.

Following the completion of the field consultations, a stakeholders' validation workshop was held on 11 November 2025 in Addis Ababa, Ethiopia, bringing several participants, including senior government officials from Ethiopia and Somalia, UNIDO technical staff, research partners (ICARDA and others), private sector actors, financial and insurance institutions, and climate and disaster risk management experts. The main objective was to validate the draft project concept note and ensure that its design reflects the priorities, lessons, and realities of both countries while enhancing cross-border collaboration on climate-resilient pastoral systems. During the PFG further consultations and regional stakeholders' validation workshops will be held, bringing together Ethiopian and Somali counterparts, the NDAs, and relevant institutions, to validate proposed cross-border and regional coordination mechanism and to ensure alignment of the project intervention with the needs of the target locations as guided by national priorities.

Participants reviewed the project's design and components, the outcomes of community consultations in both countries, and technical presentations on the CBBP, and the Multi-Hazard Early Warning System

(MHEWS) as tools contributing to locally led adaptation process. Key recommendations included strengthening cross-border coordination, enhancing financial and insurance linkages, promoting locally led and inclusive adaptation, and ensuring policy coherence, conflict sensitivity, and integration of indigenous knowledge. The workshop validated the quality and relevance of the concept note, and its recommendations have been incorporated into the revised CN, particularly under components on resilient livestock systems, financial inclusion and risk management, and climate information and early warning systems.

I. Justification for funding

In accordance with the Adaptation Fund's mandate to finance the full cost of adaptation, the delivery of all project outputs and outcomes under this regional project is fully covered by the requested Adaptation Fund resources and is not contingent upon external co-financing or additional funding sources. The project is therefore designed to achieve its stated objectives independently, without reliance on parallel or future financing.

The requested US 30 million is justified by the scale of climate risks affecting pastoral and agro pastoral communities across the Ethiopia–Somalia drylands and by the type of climate-specific investments required to strengthen their resilience. Rising temperatures, prolonged droughts, and increasingly degraded rangelands are eroding livestock assets, reducing water availability, weakening markets, and limiting the ability of institutions and communities to respond. Without adaptation support, households face worsening livestock mortality, reduced pasture regeneration, escalating water shortages, and growing conflict around grazing areas. Women and youth, who depend heavily on small ruminants and informal livestock trade, remain particularly vulnerable due to limited access to services, information, and financial opportunities. National and subnational systems, though committed to NAP and NDC goals, lack the operational tools and resources to implement these commitments in climate-sensitive drylands.

The AF grant covers the climate-driven, incremental costs that existing development or humanitarian programs cannot address. AgrInnova's first component focuses on strengthening the institutional and technical capacity needed for climate-responsive livestock and rangeland management. This requires developing climate-informed planning tools, equipping cooperatives, supporting community platforms, training women and youth leaders, and ensuring institutions can interpret and use climate information. These functions are foundational for adaptation but remain unfunded in both countries.

The second component centers on rangeland and water systems, where climate change has had the most visible impact. Rehabilitation of degraded areas, reseeding with indigenous species, construction of water harvesting structures, and strengthening of local governance groups are all adaptation measures that directly counter drought and land degradation. These costs would not arise in a stable climate and therefore fall within the full-cost-of-adaptation justification.

AgrInnova's third component responds to the climate vulnerability of livestock systems by investing in drought-tolerant breeding programs, improved animal health services, climate-resilient fodder production, and modern value-addition facilities powered by solar energy. The project supports digital traceability and advisory tools that help producers anticipate climate threats and reduce losses. These measures allow households to protect their primary assets and diversify their income, particularly benefiting women and youth who rely on small ruminants and short-cycle enterprises.

The fourth component requires resources to build a regional system for climate services, early warning, and cross-border coordination. This includes digital platforms, AI-assisted alerts, knowledge exchanges, cross-border monitoring groups, and youth-led rangeland information systems. These systems enable Ethiopia and Somalia to anticipate droughts, coordinate mobility, and prevent large-scale losses. Such regional mechanisms cannot be financed through single-country programs or local budgets.

AF resources are essential because Ethiopia and Somalia face significant fiscal constraints, with domestic budgets directed toward basic services and humanitarian needs rather than long-term climate adaptation. Most ongoing initiatives focus on crop agriculture, emergency relief, or general livestock

development, none of which provide the climate-specific inputs needed to restore degraded rangelands, secure water, strengthen drought-resistant breeding, or build digital climate services. The AF grant therefore fills a structural adaptation gap.

The level of financing requested is therefore directly proportional to the scale, urgency, and systemic nature of the climate risks facing pastoralist and agropastoral communities across Somalia and Ethiopia's shared dryland and rangeland systems, and reflects the minimum resources required to deliver meaningful and lasting resilience outcomes at regional scale. Without this investment, vulnerable households, community institutions, and cross-border pastoral economies will remain highly exposed to escalating climate shocks, recurrent droughts, and resource degradation. By contrast, the proposed programme enables a transformative shift toward climate-resilient, locally led, and regionally coordinated livestock and rangeland systems, strengthening adaptive capacity, safeguarding livelihoods, and promoting long-term stability across the Ethiopia–Somalia borderlands.

J. Sustainability of the project/programme outcomes

Long term climate resilience in the Ethiopia and Somalia drylands depends on the capacity of local communities, cooperatives, and institutions to continue managing rangelands, livestock systems, and climate risks long after external support concludes. The project strengthens this foundation by embedding adaptation practices within local governance structures, restoring ecological systems that sustain pastoral livelihoods, and expanding economic opportunities that can finance future resilience. Sustainability is therefore approached through five interconnected dimensions, i.e., financial, social, economic, institutional, and ecological, each of which reinforces one or more of the project outcomes and ensures that the benefits of adaptation endure well beyond the life of the grant.

Financial Sustainability

Financial sustainability is strengthened by ensuring that communities and cooperatives can generate and retain resources to maintain the services and assets introduced by the project. Under Outcome 3, improved breeding programs, fodder production, value addition, and aggregation hubs create continuous income for households and cooperatives. These earnings allow producer groups to finance routine costs such as feed, veterinary inputs, operation of small processing units, and maintenance of equipment. They also support reinvestment into expansion of enterprises.

Outcome 4 expands the financial base by connecting producers to digital tools that reduce transaction costs, provide timely price information, improve quality verification, and increase returns on livestock products. Over time, digital traceability and advisory services enhance market reliability, enabling pastoralists to plan their sales and manage risks more effectively. Savings groups, microfinance linkages, and insurance schemes are established to help households protect assets during droughts, restart production aftershocks, and accumulate capital for future investment. By strengthening these financial systems, AgriInnova reduces dependency on external funding and builds a long-term foundation for community self-reliance.

Social Sustainability

Social sustainability is achieved by strengthening community ownership, inclusive governance, and social cohesion around rangeland and livestock management. Outcome 1 supports the creation and strengthening of cooperatives, community rangeland committees, women's groups, and youth leadership structures. These bodies guide local planning, resolve disputes, and manage shared resources, ensuring that responsibilities and benefits are managed collectively. When communities feel ownership of processes and assets, they are more willing to maintain them after external financing ends.

Outcome 2 deepens social sustainability through the development of community rules, grazing calendars, water-use agreements, and rangeland monitoring systems. These collectively agreed arrangements reduce conflict and promote fair access to grazing and water. Women and youth are placed in visible leadership positions in rangeland governance and small ruminant breeding groups, ensuring that adaptation benefits reach those who bear disproportionate climate impacts. Because the

project builds traditional knowledge systems and cultural norms while strengthening them with scientific tools, social acceptance and continuity are strengthened. These combined efforts help communities carry forward adaptive practices independently and cohesively.

Economic Sustainability

Economic sustainability is achieved by strengthening the climate resilience of livestock-based livelihoods and creating new income opportunities that continue beyond the project period. Outcome 3 plays a central role by improving productivity, herd health, market access, and value addition for small ruminants and camels. These measures increase earnings, reduce losses during droughts, and create reliable cash flows that allow households to save and reinvest. Climate resilient fodder enterprises and improved feeding systems ensure year-round access to feed, reducing the financial strain caused by purchasing expensive fodder during drought seasons.

Outcome 2 enhances economic sustainability by restoring rangelands and improving water security, which are the ecological foundations of livestock production. By stabilizing forage availability and improving land condition, the project lowers the cost of maintaining herds and reduces the reliance on emergency coping strategies. When ecosystems become more productive, households spend less on feed, water trucking, and animal replacement. Over time, the improved natural resource base and stronger value chains create a more stable and predictable economic environment, allowing households to build resilience and protect their livelihoods from climate variability.

Institutional Sustainability

Institutional sustainability is strengthened by equipping local and regional institutions with the skills, tools, and systems needed to continue adaptation efforts independently. Under Outcome 1, the project supports the development of rangeland and livestock master plans, operational guidelines, capacity building programs, knowledge platforms, and extension tools that can be absorbed into the normal work of cooperatives and government offices. Training for extension agents, animal health workers, rangeland monitors, and cooperative managers ensures that local human capital remains strong after the project ends.

Outcome 4 expands institutional sustainability by anchoring cross-border coordination mechanisms, integrated digital platforms, climate advisory systems, and early warning tools in both government and IGAD structures. These systems strengthen the ability of Ethiopia and Somalia to share information, coordinate mobility, manage transboundary grazing corridors, and harmonize animal health or market standards. By aligning these systems with national NAPs, NDCs, and livestock development strategies, the project ensures that government institutions can finance and expand proven practices in future planning and budgeting cycles.

Ecological Sustainability

Ecological sustainability is achieved by restoring and protecting the ecosystems that pastoral livelihoods depend on. Outcome 2 supports large scale rangeland rehabilitation, reseeding with native species, erosion control, water harvesting, and community management systems that ensure continued stewardship of natural resources. These interventions reverse degradation, improve vegetation cover, and strengthen soil health, creating landscapes that can withstand prolonged droughts.

Outcome 3 contributes by promoting livestock systems that are lighter on the environment. Drought tolerant breeds, improved feeding practices, community-controlled breeding, and reduced reliance on overgrazed communal lands help to lower pressure on fragile ecosystems. As rangeland conditions improve and herd management becomes more efficient, biodiversity recovers, forage availability becomes more reliable, and the risk of resource-based conflict decreases. These ecological gains ensure that the benefits of the project continue long after implementation, supporting a healthy, productive landscape that can adapt to future climate stress.

Across all dimensions, AgrInnova strengthens the environmental, economic, social, institutional, and financial foundations of climate resilience. By directly linking sustainability strategies to the project's outcomes, the program ensures that communities gain the capacity, tools, knowledge, incentives, and ecological conditions they need to sustain adaptation practices long into the future

K. Environmental and social impacts and risks

The project has been classified as Category B because its anticipated environmental and social risks are moderate, localized, and can be effectively managed through participatory planning and community-based governance systems. Consistent with the Adaptation Fund's environmental and social policy, potential impacts will be identified, monitored, and addressed together with the communities who manage the land, water, and livestock resources. This means that the same structures leading adaptation, i.e., rangeland committees, cooperatives, women's groups, youth monitors, and customary institutions, will also guide risk screening, mitigation, and ongoing oversight. Through this locally rooted process, the project ensures that activities remain culturally appropriate, conflict sensitive, environmentally sound, and compliant with the Adaptation Fund environmental and social policy as well as national regulations in Ethiopia and Somalia. Site specific assessments and ESMPs will be prepared during the PPG and inception phases to refine measures and maintain strong alignment between the proposed interventions and safeguard requirements throughout implementation.

Table 4: Environmental and social risks identified and mitigation measures

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		Risk: Possible non-compliance with national, regional, or international veterinary standards and rules on use of genetic resources (WOAH/FAO) due to fragmented regulations or contractor error. Likelihood: Low Mitigation: The project will ensure full compliance with all environmental, land, veterinary regulations and Nagoya Protocol. A legal review will produce a compliance matrix and permit register, with enforcement through go/no-go decision gates. Continuous monitoring will use an integrated checklist, and detailed compliance plans will be finalized during the PFG and inception phases.
Access and Equity		Risk: Unequal access to project benefits (digital tools, improved genetics, water) for poorer, remote, or marginalized communities. Likelihood: Low Mitigation: Ensure inclusive planning and participatory governance through indigenous associations, cooperatives, targeted outreach, pro-poor access, local-language delivery, grievance redress mechanisms, and digital monitoring. Detailed action plans will be developed during the PFG and inception phases.
Marginalized and Vulnerable Groups		Risk: Women, youth, and vulnerable pastoralists, including marginalized groups, may be excluded from project activities and benefits. Impact: Medium but could undermine equity and community ownership. Mitigation: Ensure inclusive participation through participatory planning, transparent by-laws, and grievance mechanisms. Target at least one-third of Community-Based Breeding Programs to be women-led, adopt gender-transformative approaches, and engage youth via digital rangeland monitoring, entrepreneurship, and mentorship programs.
Human Rights		Risk: Indirect social impacts from exclusion or perceived inequity, leading to social tension. Impact Level: Low Mitigation/Management: Ensure Free, Prior, and Informed Consultation (FPIC) and inclusive participation of all groups. Apply UNGPs, ILO standards,

		and AF-ESP to prevent discrimination, SEA/SH, and labor risks. Measures include gender and inclusion targets, SEA/SH Code of Conduct and survivor-centered GRM, OHS and child/forced labor screening, data protection, equal pay, and regular social audits with corrective actions.
Gender Equality and Women's Empowerment		Risk: Cultural norms may limit women's participation in leadership, decision-making, and market access. Impact: Medium, it could reduce empowerment and socio-economic benefits. Mitigation: Implement a GAP with targeted women's cooperatives, gender-responsive training, and access to finance (Output 3.1.3). Track sex-disaggregated indicators and apply corrective actions, such as governance adjustments and enhanced outreach, if targets are unmet for two quarters.
Core Labor Rights		Risk: Weak enforcement of national labor standards and ILO conventions by contractors and SMEs during construction or processing. Impact: Low, possible breaches of decent work standards. Mitigation: All contracts will mandate compliance with national labor laws, ILO conventions, and UNIDO standards, including fair wages, safe conditions, and zero tolerance for child or forced labor, discrimination, and SEA/SH. Compliance will be ensured through OHS training, PPE provision, Codes of Conduct, and regular labor audits with third-party oversight. Corrective actions, including remediation or contract suspension, will be applied as needed. Detailed procedures will be finalized during the PPG phase.
Indigenous Peoples		Risk: Limited integration of customary governance and indigenous knowledge in project design and implementation. Impact: Low, it may weaken project legitimacy and trigger local tensions. Mitigation: Integrate customary institutions into grazing and water management (Component 2) and embed Indigenous Knowledge in breeding program design and implementation, rangeland restoration, and innovation design through participatory planning and continuous community engagement.
Involuntary Resettlement		Risk: Resource-use restrictions causing perceived or actual loss of access or livelihoods. Impact: Low, it may have an implication for local conflict or economic displacement. Mitigation: Ensure all restoration and water management agreements are community-driven, endorsed by cooperatives and customary leaders, and based on transparent, equitable access rules.
Protection of Natural Habitats		Risk: Restoration or water interventions may increase grazing pressure or disturb sensitive habitats (wetlands, riparian zones, wadis). Impact: Low, Localized degradation, erosion, or habitat fragmentation. Mitigation: Apply the mitigation hierarchy (avoid–minimize–restore–offset); use rangeland masterplans and participatory mapping to avoid critical habitats; enforce buffer zones; conduct ESIA/ESMP with biodiversity, erosion, and water-use controls; ensure contractor compliance, supervision, and community monitoring; and use GeoAI-supported assessments to guide adaptive management.
Conservation of Biological Diversity		Risk: Biodiversity and livestock genetic integrity Impact: Medium–High: Introduction of non-native forage species and inbreeding within local herds could undermine ecosystem resilience, livestock productivity, and long-term climate adaptability. Mitigation: Use indigenous, site-adapted forage species; maintain livestock genetic diversity through community-based breeding and sire rotation. For cross-border germplasm movement, implement Material Transfer Agreements and benefit-sharing arrangements aligned with the Convention on Biological Diversity and Nagoya Protocol. Strengthen community capacity and promote livelihood diversification to reinforce resilience..
Climate Change		Likelihood: Low risk

		Mitigation Measures: While most actions are adaptive (solar displaces diesel; small ruminant innovations reduce GHG emissions), some interventions (concrete water harvesting structures, processing centers, increased trekking distances during droughts) may carry maladaptation implications. A maladaptation screening will be integrated into the ESIA and conducted during the Project Formulation and inception phases to assess and mitigate potential second-order risks.
Pollution Prevention and Resource Efficiency		Risk: Localized pollution and waste from processing units, ICT/solar equipment, and water/energy use. Impact: Low, limited, localized environmental effects. Mitigation Measures: A Waste Management Plan will be implemented across all project sites, promoting reduce–reuse–recycle practices and circular use of by-products. Resource efficiency protocols will be enforced, and contractors and workers trained in safe handling and PPE use. Work will stop immediately if cultural or physical heritage is found, with the site secured and authorities notified. Regular monitoring will ensure compliance.
Public Health		Risk: Increased livestock mobility and market interactions may raise zoonotic disease risks (e.g., Rift Valley Fever, Camel Flu). Impact: High, it may affect both livestock and human health. Mitigation: Strengthen veterinary services and disease surveillance in both Ethiopia and Somalia, integrated into the digital Early Warning System. Link livestock certification to WOA standards. Coordinate with recognized quarantine facilities (Berbera and Bosaso in Somalia; relevant Ethiopian facilities). Engage professional livestock associations in both countries and establish active surveillance coordination with Gulf Cooperation Council import authorities. Train veterinary teams and traders on PPE use, hygiene, cold-chain protocols, and biosafety to minimize human and livestock exposure.
Physical and Cultural Heritage		Risk: Accidental disturbance or damage to archaeological or cultural sites during construction of water harvesting or processing facilities. Impact: Low–Medium Mitigation: Conduct pre-screening and consultations with communities, customary leaders, and national cultural heritage authorities before siting any infrastructure under Components 2 and 3 to safeguard cultural assets and respect traditional practices.
Land and Soil Conservation		Risk: Poor infrastructure or grazing management may cause localized soil erosion and productivity loss. Impact: Low Mitigation: Apply SWC structures (e.g., half-moons, contour bunds), enforce rotational grazing, include erosion and sediment control plans in construction, ensure proper site selection and drainage, and link restoration success to livelihood incentives for sustained community commitment.

PART III: IMPLEMENTATION ARRANGEMENTS

The project will be implemented through a multi-stakeholder approach involving national governments, regional and local partners, to ensure effective execution, coordination, and long-term sustainability.

UNIDO as Implementing Entity (IE) and Executing Entity (EE):

UNIDO will serve as the Multilateral Implementing Entity (MIE) of the project and will be responsible to the Adaptation Fund for overall project-cycle management, fiduciary oversight, quality assurance, environmental and social safeguards compliance, gender-policy compliance, monitoring and evaluation oversight, and reporting to the Adaptation Fund. UNIDO's role as the MIE, is distinct from any execution functions that UNIDO may perform under specific outputs.

In accordance with Adaptation Fund policy on combined IE/EE roles, UNIDO will establish and maintain a structural firewall between its IE and EE functions. A dedicated EE team will operate under independent management arrangements, with separate reporting lines, physical office separation, and distinct budgetary codes to prevent conflicts of interest and ensure fiduciary independence.

Executing Entities:

In both countries, the project will be executed by national entities, ensuring that interventions are locally driven and aligned with national policies. The Agricultural Transformation Institute (ATI) has been designated as the Executing Entity (EE) for Ethiopia, while in Somalia, the East African Environmental, Agro and Livestock Company (East-Agro) is the designated EE. In addition to the national EEs, UNIDO will fulfil a distinct and non-overlapping execution role for specific outputs of the project.

The national EEs will bear primary responsibility for day-to-day implementation, including coordination with local authorities, community engagement, service delivery, infrastructure supervision, and operational management of project activities across target locations. UNIDO's execution mandate will be complementary in scope, encompassing specialised technical support for value chain development, innovation hubs for youth and women empowerment, agrivoltaic system planning and installation, capacity building, green jobs creation, international procurement, regional coordination, knowledge management, south-south cooperation, and institutional capacity strengthening. In performing its execution functions, UNIDO will protect fiduciary and technical standards while transferring methods, tools, systems, and execution experience to the national EE and other national/sub-national partners over the project cycle.

Project Executing Partners:

Government Partner: The Ethiopian Ministry of Agriculture and the National Climate Fund within the Ministry of Finance in Somalia will provide government leadership and strategic oversight and jointly chair the Project Steering Committee (PSC), ensure alignment with national adaptation frameworks, and facilitate coordination with line ministries in the respective countries. Both government institutions will serve as the central policy counterpart but will not manage project funds. Other relevant line ministries including Ministry of Planning and Development (MoPD), MoLFR, MoAI and Ministry of Environment and Climate Change (MoECC) in Somalia, will also participate in the PSC to provide technical oversight and guidance related to technical matters.

Technical implementing partners: During the PFG phase, in consultation with the NDAs and the line ministries, the International Center for Agricultural Research in the Dry Areas (ICARDA) and the Intergovernmental Authority on Development (IGAD) in Eastern Africa (IGAD) would be further consulted to define the exact technological services to be deployed in the project as specialized implementing partners. ICARDA, as a technical implementing partners, offers expertise on climate-resilient small-ruminant systems, regenerative rangeland management, promotes ICARDA's One Health approach/ the Integrated Herd-Health Package (I2HP) for smallholder farmers, provides digital climate information,

promotes democratization of climate information/EWS, introduces a real-time GeoAI disease and productivity monitoring systems, and establishes a Regional Climate-Smart Livestock Hub (“Smart Pack”), owned and coordinated by the local institutions. Whereas IGAD will support a regional support through peace building and conflict reduction through its regional policy support systems, harmonizing animal health regulations, supporting regional livestock trade frameworks, coordinating transboundary disease surveillance, and facilitating pastoral mobility agreements.

Summary of Implementation/ Execution arrangements:

The ATI in Ethiopia and East Agro in Somalia will lead the execution of Component 1 (Institutional and Technical Capacity Strengthening) and Components 2 (Community-Based and Inclusive Rangeland Resource Management) in their respective countries, while UNIDO will lead the execution of Component 3 and Component 4.

Under Component 1, ATI (Ethiopia) and East-Agro (Somalia) will be responsible to execute **Output 1.1.1 and Output 1.1.2**. Both Government institutions will ensure engagement with their respective national and local governments for the operationalization of the cross-border rangeland management structure. Under this component, UNIDO and ICARDA will carry out **Output 1.1.3**, to effectively support the establishment of regional learning platform through dedicated technical services.

Under Component 2, ATI (Ethiopia) and East-Agro (Somalia) will lead engagement of communities, NGOs and national institutions to co-design and implement appropriate rangeland management approaches in the project locations (specifically lead **Output 2.1.1 and Output 2.2.1**). UNIDO jointly with ICARDA, will facilitate the identification and uptake innovations and climate-smart technological solutions for resilience building and rangeland resource management in the region (specifically **Output 2.1.2 and Output 2.2.2**).

Under Component 3, UNIDO will lead the execution of this component with special implementation agreement with ICARDA. UNIDO will facilitate harmonization standards, establishment of traceability systems and promote regional learning on value-addition for climate-resilient rangeland resource management, and responsible to execute Output 3.1.3. ICARDA will specifically implement **Output 3.1.1 and Output 3.1.2**. ICARDA will collaborate with CBOs (to be identified during the PFG stage) to ensure inclusiveness and scalability of the project interventions. Thus, the local CBOs will have an instrumental role in the last mile services by engaging with communities and MSMEs in the targeted regions in the dissemination of climate-resilient livestock breeding and value addition.

Under Component 4, UNIDO in close collaboration with ICARDA and IGAD will implement the regional policy collaboration and regional climate advisory services. **Output 4.1.1** will be implemented by IGAD; **Output 4.1.2** will be entirely executed by ICARDA; and UNIDO will be responsible for undertaking **Output 4.1.3**, where UNIDO will collaborate with the national EEs (ATI and East-Agro). The national EEs ATI and East -Agro will assist UNIDO through the coordination with their respective national governments, institutions and local communities to implement operability of cross border early warning and climate advisory systems in the target regions.

As part of the project execution function, UNIDO will lead the execution of the project midterm and a final independent evaluation which will be conducted as per UNIDO and the AF requirements and standards. The independent project evaluation will support learning, continuous improvement and accountability, and provides information about result and practices.

Governance and oversight:

A Project Steering Committee (PSC) will be set up at the regional level to provide strategic oversight, risk adaptation, and performance monitoring throughout the project. The PSC will be jointly chaired by Ethiopia and Somalia and co-chaired by UNIDO I its capacity as the MIE of the AF. The PSC will ensure that the project aligns with national policies and regional adaptation frameworks, facilitating coordination between Ethiopia and the Somalia to avoid duplication of efforts. It will also address implementation

challenges, ensuring effective resource allocation. The PSC will also support regional cooperation by engaging with the East African Community (EAC) and other regional initiatives in the Horn of Africa, fostering collaboration and sharing of knowledge and resources.

Each set of activities to be implemented in Ethiopia and Somalia by UNIDO, will be governed by the provisions of the Standard Basic Cooperation Agreement concluded between the Government of the recipient countries. These are:

- The Government of the Federal Democratic Republic of Ethiopia agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Program and the Government, signed on 26 February 1981 and entered into force on 5 November 1984.
- The Government of the Federal Republic of Somalia agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 16 May 1977 and entered into force on 11 October 1978.

Alignment with the Results Framework of the Adaptation Fund

AgrInnova supports the Adaptation Fund's results framework grounding innovation in community leadership while connecting local solutions to regional systems for scaling. Community breeders, rangeland committees, cooperatives, and youth monitors adapt practices to local climate realities, and these innovations are strengthened through shared early warning platforms, coordinated rangeland corridors, and IGAD-led knowledge exchange. The updated results framework reflects this dual approach by tracking community-level gains in resilience and governance, alongside regional outcomes such as cross-border alerts, restored corridors, and enhanced institutional capacity across Ethiopia and Somalia.

Table 5: Alignment of the project with AF results framework

Project Objective(s) ¹	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (US\$)
Strengthen the climate resilience and adaptive capacity of vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia's arid and semi-arid rangelands.	# Households reached # of CBBPs, PUs, Value-add units, and Market Hubs functional %Women & youth participation in CBBPs, PUs, value-add, hubs %of beneficiaries reporting improved resilience (feed, water, markets, finance, EWS)	Outcome 1: Reduced exposure to climate-related hazards and threats.	Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	4,750,000
		Outcome 2: Strengthened institutional capacity to reduce risks.	Indicator 2: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	2,137,231
		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes	Indicator 3.2: Increase in application of appropriate adaptation responses	1,595,749
		Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	Indicator 4: Increased responsiveness of development sector services to evolving needs from changing and variable climate	400,000
		Outcome 5: Increased ecosystem resilience in response to climate variability.	Indicator 5: Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	2,500,000
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Indicator 6.2: Percentage of targeted population with sustained climate-resilient alternative livelihoods	3,550,000
		Outcome 7: Improved policies and regulations that promote and enforce resilience measures	Indicator 7: Climate change priorities are integrated into national development strategy	3,209,862
		Outcome 8: Innovation for effective, long-term adaptation to climate change accelerated, encouraged, and enabled to scale up	Indicator 8.1: No. of new, adapted or improved adaptation solutions developed contextually and with the inclusion of the communities most vulnerable to climate change	7,110,939
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (US\$)
Component 1. Stronger institutional and technical capacity for coordinated and sustainable rangeland and livestock management.				
Outcome 1.1. Local institutions, communities, and cooperatives empowered with devolved authority and skills for	# of master plans developed/endorsed • % of recommendations integrated • # of stakeholders applying guidelines • # of cooperatives registered	Output 7.1: Improved integration of climate-resilience strategies in country development plans	Core Indicator 7.1.1: Policies, strategies, and/or plans developed or adjusted to integrate climate risk considerations [of policies, strategies, and/or plans, disaggregated by scale]	1,700,000
		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	2.1.1: Institutions supported strengthening capacity to understand and address climate risks and resilience.	2,137,231

coordinated, community-led rangeland and livestock management under climate change.	• % of cooperatives trained • # of women/youth in leadership • % of cooperatives with improved services • # of knowledge platforms operational • # of learning events held • # of knowledge products shared • % of participants reporting improved access	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.1: Climate resilience knowledge products and/or tools developed and shared with stakeholders	745,749
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Component 2. Community-based and inclusive rangeland resource management

Outcome 2.1 Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.	• # of micro-basins / ponds/sand dams / solar pumps constructed • # of water-user groups established and functional • % of equitable / conflict-free water management • # of hectares of degraded rangeland rehabilitated (ha) • # of community grazing calendars and rules adopted • # of RIPs / Pastoral Field Schools established • # of community rangeland monitors trained and reporting • % of rangeland monitoring data integrated into digital platforms • # of adaptive management decisions triggered by monitoring	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national, and regional adaptation innovation	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	1,810,939
		Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management.	1,500,000
		Output 3.3: Increased ownership of adaptation and climate risk reduction processes	Indicator 3.3.1: Number of local institutions and/or communities responsible for decision-making over how adaptation solutions are defined, prioritized, designed, and/or implemented.	850,000
		Output 4: Vulnerable development sector services and infrastructures strengthened in response to climate change impacts, including variability	Indicator 4.1.1: Development sector services strengthened to respond to climate variability and change.	400,000

Outcome 2.2 Rangelands' health enhanced through inclusive and community-driven management systems.	-Hectares of rangeland showing improved condition -# of functioning community rangeland monitoring groups -% of monitoring data used for adaptive management decision # of small-scale water harvesting structures built and operational % of water points managed through equitable, conflict-free arrangements.	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management.	1,000,000
		Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems.	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	2,300,000

Component 3. Innovative and inclusive livestock (small ruminant and camel) production for resilient livelihood

Outcome 3.1: Climate-smart small ruminant and camel systems enhanced, resulting in strengthened, resilient, livelihoods.	# of CBBPs established / scaled (Sheep, goats, camels) • # of improved sires disseminated • % of livestock productivity gains (weight, milk, survival) • # of women and youth engaged in breeding and husbandry • # of producers accessing extension services • # of aggregation hubs operational (chilling / grading / storage) • # of producers using traceability / e-tag / QR systems • # of producers accessing digital market and advisory services • % of reduction in post-harvest losses	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	3,000,000
		Output 1.2: Targeted population groups covered by warning and advisory services for climate-related hazards and threats	Indicator 1.2.2: People covered by new or improved early warning systems.	2,700,000
		Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	Indicator 6.1.1: People receiving targeted support for new and/or improved livelihoods to manage climate risk.	3,550,000
Component 4. Regional cooperation and digital innovations for early warning system				
Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management	# of unified digital platforms & dashboards established • # of climate advisories & anticipatory actions disseminated per year • # of communities receiving timely alerts • # of regional dashboards functional • # of AI alerts produced & acted upon • #of youth/cooperatives trained as digital rangeland monitors • # of Ethiopia–Somalia–IGAD dialogues held • # of cross-border monitoring committees functional	Output 7.1: Improved integration of climate-resilience strategies into country development plans	Core Indicator 7.1.1: Policies, strategies, and/or plans developed or adjusted to integrate climate risk considerations.	1,509,862
		Output 1.2: Targeted population groups covered by warning and advisory services for climate-related hazards and threats	Indicator 1.2.2: People covered by new or improved early warning systems.	2,050,000
Total outcome level grant amount				25,253,781I

PART IV: ENDORSEMENT BY GOVERNMENTS 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 for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please

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

attach the endorsement letters with this template; add as many participating governments as possible if a regional project/programme:

H.E. Mr. Seyoum Mekonen Hailu State Minister, Environment and Climate Change and Population and Development Ministry of Planning and Development /Environmental Protection Authority, Addis Ababa, Ethiopia Tel: +251 (0) 111403049 E-mail: bement2002@gmail.com Alternante E-mails: eenvironment@gmail.com	Date: October 10, 2025
Mr. Liban Obsiye Executive Director National Climate Fund (NCF) National Climate Fund Corso Somalia Street, Shangaani District Mogadishu, Somalia Tel: +252 61 0997293 Email: edncf@mof.gov.so	Date: July 15, 2026

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 including the Ethiopian NAP, NDC 3.0, Green Legacy initiative,LT-LEDS-2023; and Somalian NAP, NDC 3.0, NTP and LSDS-2019, and other national climate adaptation and resilience building strategies; 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.	
<i>Name and Signature/</i> Implementing Entity Coordinator: Ms. Ganna Onysko Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization - UNIDO Implementing Entity Coordinator	
Telephone: +43 1 26026 3708	Telephone: +43 1 26026 3708
Project Contact Person: Ms. Ganna Onysko	
Email: g.onysko@unido.org	

ANNEXES

Annex 1. Summary of virtual consultation workshops with NDAs and partners in Ethiopia and Somalia.

Table 6: Tabulated summary of virtual consultation with NDAs and partners in Ethiopia and Somalia

Country / Meeting Title	Date & Time	Location / Format	Participants (Key Institutions)	Purpose of the Meeting	Main Discussion Points & Outcomes	Follow-up / Next Steps
Ethiopia – Virtual Consultation with the NDA and Key Sector Partners (MoA, ATI, UNIDO, MoPD)	23 July 2025 (2:00–3:30 PM Addis Ababa time)	Virtual Meeting	- Ministry of Planning & Development (MoPD – NDA) - Ministry of Agriculture (MoA) - Agricultural Transformation Institute (ATI) - UNIDO HQ & Regional Office	To build shared understanding among national stakeholders on AgrInnova's objectives, strategic relevance, and next steps for Adaptation Fund concept note submission.	- The NDA (MoPD) emphasized alignment with Ethiopia's NAP, NDC, and CRA Strategy, and confirmed readiness to endorse the project upon submission of revised documents. - The MoA reaffirmed its support, highlighting AgrInnova's contribution to livestock resilience and sustainable resource management. - ATI outlined the project rationale, focusing on capacity building, technology transfer, and inclusive innovation for women, youth, and pastoralists. - UNIDO clarified its dual role as Implementing and Executing Entity, responsible for concept note preparation and coordination with the AF Secretariat.	- Finalize and circulate the revised pre-concept note incorporating feedback. - Initiate internal clearance for regional submission. - Organize a joint NDA meeting (Ethiopia–Somalia) by late August / early September 2025 for coordinated endorsement.
Somalia – Virtual Consultation with NDA and National Stakeholders, UNIDO, and ICARDA (	11 July 2025	Virtual Meeting	- Ministry of Environment & Climate Change (MoECC) (Somalia) - UNIDO Somalia & HQ - ICARDA Ethiopia	To define Somalia's national priorities and areas of focus under the AgrInnova regional project, ensuring alignment with the Adaptation Fund and Ethiopia's component.	- The NCF (NDA) confirmed endorsement and strong national ownership of the regional project. - Key national priorities identified: - Capacity development: training for pastoralists, extension workers, and government staff. - Livestock production: focus on sheep, goat, and camel systems, and improved animal health. - Rangeland development: restoration, sustainable management, and fodder initiatives. - Value addition: support for milk processing, ghee, cheese, solar-powered cold chains, and small-scale slaughterhouses. - Emphasized local institutional capacity and private sector participation.	- Refine Somalia's project component in consultation with stakeholders. - Ensure regional coherence with Ethiopia's priorities. - Proceed with concept note drafting and submission to the Adaptation Fund Secretariat.

Annex 2: Local community consultations in various program locations in Ethiopia and Somalia

Table 7: Tabulated summary of consultation outcomes with local communities

Country / Regions Covered	Date	No. of Participants (M/F)	Key Discussion Topics	Main Issues and Findings	How Reflected in AgrInnova Program Design
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Ethiopia – Somali Region (Degehabur), South Omo Zone (Bena Tsemay), and Oromia Region (Yabello & Harawaxxuu)	Oct 29 – Nov 9, 2025	206 (101M / 105F)	Climate vulnerability; rangeland and water management; livestock production; cooperative capacity; value chains; gender and youth inclusion; private sector engagement.	Communities reported frequent droughts, declining pasture and water availability, and degraded rangelands that threaten livestock productivity and household resilience. Institutional and cooperative capacity gaps, limited veterinary services, and poor market access were major barriers. Women and youth are active in goat fattening, milk processing, and fodder production but remain underrepresented in leadership. There is strong community demand for rangeland rehabilitation, water harvesting, animal health systems, and feed development.	Findings informed the Ethiopia component of the AgrInnova Program, contributing to: • Component 1: Institutional Capacity & Governance: Strengthening local cooperatives, rangeland councils, and district-level adaptation planning. • Component 2: Resilient Livestock Systems: Integrating climate-smart breeding, forage systems, and community-based rangeland restoration. • Component 3: Livelihood Diversification & Women's Empowerment: Scaling up women-led goat and milk enterprises and integrating market access interventions. • Component 4: Early Warning & Knowledge Systems: Strengthening information flow and traditional knowledge integration for risk preparedness.
Somalia – Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland)	Oct 30 – Nov 7, 2025	99 (64M / 35F)	Climate shocks and vulnerability; rangeland and water management; cooperative governance; livestock value chains; institutional capacity; innovation and early warning systems.	Consultations revealed intensifying droughts, erratic rainfall, and periodic flooding along the Shabelle River. Key challenges include rangeland degradation, water scarcity, weak cooperatives, and limited coordination among institutions. Communities prioritized climate-smart water harvesting, rangeland restoration, strengthening cooperatives, and adopting digital early-warning and livestock market tools.	The findings shaped the Somalia component of the AgrInnova Program: • Component 1: Institutional Capacity & Governance: Building coordination among ministries, cooperatives, and local authorities for locally led adaptation. • Component 2: Resilient Livestock Systems: Supporting regenerative rangeland management, forage and water infrastructure, and animal health improvement. • Component 3: Livelihood Diversification & Women's Empowerment: Promoting inclusive value chains and enterprise development. • Component 4: Early Warning & Knowledge Systems: Expanding access to digital climate services, localized forecasts, and market information tools. These priorities reaffirm AgrInnova's commitment to community-driven, inclusive, and innovation-based adaptation in pastoral and agro-pastoral systems.



Figure 4: Community consultation in Somalia and Ethiopia

Annex 3: Gender analysis summary based on consultations in Ethiopia and Somalia

Table 8: Tabulated summary of gender analysis outcomes

Country / Regions Covered	Date	Women Participants (approx.)	Key Discussion Topics	Main Gender Issues and Findings (Women's Perspectives – Understanding, Challenges, and Priorities)	How Reflected in AgrInnova Program Design
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Ethiopia – Somali Region (Degehabur), South Omo Zone (Bena Tsema), and Oromia Region (Yabello & Harawaxxuu)	Oct 29 – Nov 9, 2025	105 women participants (approx.)	Women's understanding of climate change; impacts on livelihoods and food security; roles in livestock and water management, access to resources and decision-making; adaptation priorities.	Understanding of Climate Change: Women described climate change as “a shift in rain and heat patterns that disrupts our animals, crops, and family well-being.” They linked it to prolonged droughts, unpredictable rains, pasture loss, and water scarcity. Challenges: Women face increased workload collecting water and fodder, loss of income from milk and crop sales, limited access to finance, land, and information, and exclusion from decision-making. Many noted that recurrent droughts “make survival harder and work heavier,” with rising food insecurity. Local Adaptation Perspectives: Women prioritize water harvesting, fodder cultivation, cooperative savings, and collective rangeland management. They emphasized traditional knowledge, such as rotational grazing and drought prediction from environmental signs, but want training to blend these with new practices. Agency: Despite barriers, women see themselves as key drivers of household adaptation through livestock care, milk processing, and savings groups, but call for recognition and inclusion in community planning.	These insights informed the Ethiopia component of the AgrInnova Program through: • Component 1: Institutional Capacity & Governance: Mainstreaming women's leadership in cooperative and adaptation committees, ensuring their participation in local resource planning. • Component 2: Resilient Livestock Systems: Supporting women's access to improved breeds, forage systems, and water infrastructure. • Component 3: Livelihood Diversification & Women's Empowerment: Promoting women-led goat fattening and dairy enterprises, microfinance, and skills training. • Cross-cutting: Integrating women's experiential understanding of climate change into local adaptation plans and empowering them as co-designers of climate actions.
Somalia – Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland)	Oct 30 – Nov 7, 2025	35 women participants (approx.)	Women's understanding of climate change and its impacts; adaptation leadership; access to finance, training, and technology; barriers to inclusion; priorities for resilience building.	Understanding of Climate Change: Women consistently defined climate change as “long dry seasons, poor rains, and floods that destroy our crops, water sources, and animals.” They see climate change not as an abstract issue but as a lived, daily struggle tied to food insecurity, livestock loss, and displacement. Challenges: Women face loss of income from milk and vegetable sales, increased burden in fetching water, limited mobility, and exclusion from formal adaptation discussions. They highlighted that “when drought comes, men migrate with animals while women remain to feed the family,” illustrating their frontline exposure to climate risks. Local Adaptation Perspectives: Women prioritize community water harvesting, fodder production, small-scale irrigation, savings groups, and livestock health services. They prefer practical, locally manageable solutions, such as repairing wells and creating women's savings groups	



Figure 5: Consultation with women groups in Ethiopia and Somalia

Annex 4: Tabulated summary of stakeholders' validation workshop held in Addis Ababa, Ethiopia

Table 9: Tabulated summary of stakeholders' validation workshops in Ethiopia

Stakeholders Consulted	Date	No. of Participants (M/F)	Topics Discussed	Key Outcomes / Issues Raised	How is Considered in Project Design
Government representatives from Ethiopia and Somalia, UNIDO technical team, ICARDA and research partners, private sector actors, financial and insurance institutions and disaster risk management/climate experts	11 Nov 2025	28	- Overview of AgrInnova Program design and components. - Presentation on community consultation processes conducted in Ethiopia and Somalia. - SmaRT Pack (Small Ruminant Technologies and Practices) approach. - Community-Based Breeding Program (CBBP). - Multi-Hazard Early Warning System (MHEWS). - Risk management and insurance linkages. - Policy and institutional coordination, conflict sensitivity, and inclusion.	- Emphasized cross-border collaboration and policy alignment between Ethiopia and Somalia. - Recommended integration of SmaRT Pack, CBBP, and MHEWS into the design. - Highlighted need for financial linkages, index-based insurance, and data-efficient risk tools. - Stressed conflict sensitivity, institutional coordination, and knowledge integration. - Noted importance of extension harmonization and livelihood diversification.	Integrated across the Program Concept Note (PCN): - Component 1: Regional coordination & policy coherence. - Component 2: Resilient livestock systems (SmaRT Pack, CBBP). - Component 3: Financial inclusion & risk management. - Component 4: Climate information & early warning. - Cross-cutting: Institutional capacity, gender inclusion, and conflict sensitivity.

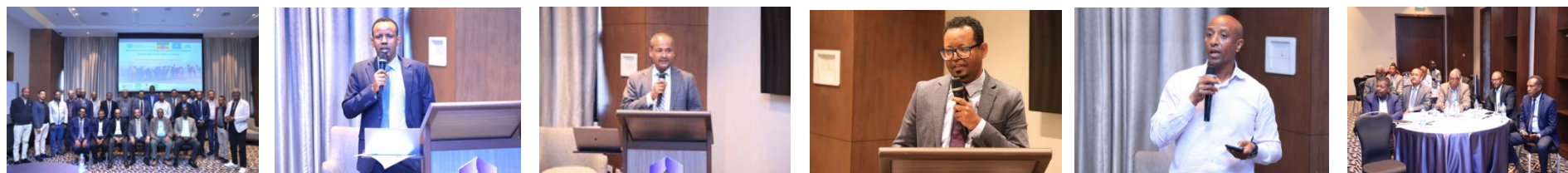


Figure 6: Photos from stakeholders' validation workshop held in Addis Ababa

Annex 5: Consolidated List of Participants of the virtual Consultation Workshops with NDAs (Ethiopia and Somalia)

Table 10: List of attendees of virtual consultation with NDAs

No.	Name	Institution / Organization	Position / Title	Country
1	Dr. Firew Tegene	Agricultural Transformation Institute (ATI)	Director, Climate and Environment Sector / Project Focal Person	Ethiopia
2	Dr. Mitiku Ayele	Ministry of Agriculture (MoA)	Senior Expert, Livestock	Ethiopia
3	Mr. Mohammed Andoshe	Ministry of Planning and Development (MoPD) – National Designated Authority (NDA)	Representative of the NDA / Senior Expert	Ethiopia
4	Dr. Yvonne Lokko	UNIDO Headquarters (IET/AGR/AIB)	Unit Head, Agribusiness Development and Innovation Division	International

5	Dr. Yoseph Delelegn	UNIDO Headquarters (IET/AGR/AIB)	Project Coordinator, Agribusiness Development and Innovation Division	International
6	Mr. Asegid Adane	UNIDO Regional Office (Addis Ababa)	Industrial Development Officer	Ethiopia
7	Mr. Olijira Kuma	UNIDO	Project Officer	Ethiopia
8	Mr. Tsegabu Tekla	UNIDO	Program Associate	Ethiopia
9	H.E. Mr. Abdullahi Godah Barre	Ministry of Environment and Climate Change, Federal Republic of Somalia	Principal Advisor to the Minister; Adaptation Fund NDA Representative	Somalia
10	Mr. Najib Abdi	UNIDO Somalia	Officer-in-Charge (o.i.c.) and National Project Coordinator	Somalia
11	Dr. Aynalem Haile	ICARDA (International Center for Agricultural Research in the Dry Areas)	Country Director, Ethiopia	International

Annex 6: List of participants of the stakeholders' validation workshop

Table 11: List of participants of stakeholder validation workshops held in Addis

Name of Participant	Organization	Email Address
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ADAPTATION FUND

CONCEPT NOTE FOR REGIONAL PROJECT/PROGRAMME

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa

Countries: Ethiopia and Somalia

Thematic Focal Area: Food security

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: UNIDO

Executing Entities: Ethiopian Agricultural Transformation Institute (ATI), East African Environmental, Agro and Livestock Company (East-Agro) Somalia and UNIDO

Amount of Financing Requested: 30,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request: Yes ☒ No ☐

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letters of Endorsement (LOE) signed for all countries: Yes ☒ No ☐

NOTE: LOEs 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 Submission¹:

☐ This proposal has been submitted before including at a different stage (pre-concept, 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: Click or tap to enter a date.

Please note that the Concept note document should not exceed 50 pages, including annexes

¹ At the concept note stage only Section I and II are needed.

Abbreviation

ASIS	Agricultural Stress Index System	JRC	Joint Research Centre (European Commission)
BREFONS	Build Resilience for Food and Nutrition Security	KYC	Know Your Customer
CALM	Climate Action and Landscape Management	LSDS	Livestock Sector Development Strategy
CCPP	Contagious Caprine Pleuropneumonia	LLRP	Lowlands Livelihood Resilience Project
CFP	Chance Finds Procedure	LMIS	Livestock Market Information System
CHIRPS	Climate Hazards Group InfraRed Precipitation with Station data	MTEF	Medium-Term Expenditure Framework
CPS	Conflict Prevention System	NARS	National Agricultural Research Systems
DRDIP-2	Development Response to Displacement Impacts Program-2	ND-GAIN	Notre Dame Global Adaptation Initiative
DRIVE	De-Risking, Inclusion and Value Enhancement of Pastoral Economies	PACT	Participatory Agriculture and Climate Transformation Programme
DRSLP	Drought Resilience and Sustainable Livelihoods Program	PPR	Peste des Petits Ruminants
East-Agro	East African Environmental, Agro and Livestock Company	PRIME	Pastoralist Areas Resilience Improvement through Market Expansion
ENSO	El Niño–Southern Oscillation	RCCC	Red Cross Red Crescent Climate Centre
EVI	Enhanced Vegetation Index	RLLP	Resilient Landscape and Livelihood Project
FSNAU	Food Security and Nutrition Analysis Unit (Somalia)	SEA-SH	Sexual Exploitation, Abuse, and Sexual Harassment
GRACE	Gravity Recovery and Climate Experiment	SWC	Soil and Water Conservation
IBLI	Index-Based Livestock Insurance	VCA	Value Chain Analysis
ICARDA	International Center for Agricultural Research in the Dry Areas		
ICPAC	IGAD Climate Prediction and Applications Centre		
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative		
IGAD	Intergovernmental Authority on Development		
IVR	Interactive Voice Response		

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Project/Programme Background and Context

The Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa (AgrInnova) project is designed as a regional initiative for Ethiopia and Somalia, recognizing that pastoral and agro-pastoral systems rangelands and livestock operate across shared ecological zones and porous borders. The project addresses the interconnected challenges faced by communities in both countries by tackling rangeland degradation and strengthening the climate resilience of key livestock species, particularly small ruminants and camels, while promoting cross-border collaboration and harmonized approaches. The project is also designed to facilitate service systems that empower communities to take the lead in identifying, designing, implementing, and managing adaptation strategies to disrupt the cycle of crisis and dependency. Pastoral and agro-pastoral systems in east Africa are under increasing pressure from recurrent droughts, erratic rainfall, floods, and rising temperatures, with impacts that transcend national boundaries. These shocks cause forage and crop failures, high livestock morbidity and mortality, and environmental damage, leading to food insecurity, loss of income, migration, and conflict over scarce resources. Despite these shared challenges, responses remain largely fragmented along national lines, with limited mechanisms for coordinated planning, financing, and implementation at the regional level. Current national plans lack the skills, financing, and practical mechanisms to devolve decision-making and resources to the local level, leaving communities trapped in cycles of crisis and dependency. Focusing on small ruminants and camels offers the most strategic regional pathway to resilience, a strategy long advocated by pastoral communities. Camels provide unmatched drought tolerance, heat resistance, and milk production during dry spells, serving as a nutritional and economic safety net. Goats and sheep, with their rapid reproduction and ability to thrive on sparse vegetation, enable fast herd recovery and generate regular income. Strengthening these value chains directly benefits women and youth, primary managers of small stock and milk, while creating climate-friendly jobs that reduce instability and migration pressures. This project is designed to be led by these local actors, ensuring solutions are grounded in their reality and priorities.

Despite their potential, these value chains face deep constraints: weak rangeland and water governance, limited technical and institutional capacity, poor access to climate finance and markets, lack of resilient infrastructure (processing, cold storage, aggregation), and weak traceability and animal health systems. Proven innovations such as regenerative rangeland management; community-based breeding programs (CBBPs); pastoral field schools (innovative extension approach for adults); digital solutions such as pastoral advisory service, and market information system. It also promotes integrated service delivery models, such as one-stop shop (OSS) centers to improve access to inputs and services and finance. By aligning these interventions across Ethiopia and Somalia, AgrInnova aims to unlock the full potential of livestock systems as drivers of resilience, economic stability, and peace in the Horn of Africa.

Geographic, Social, Economic, and Environmental Context

Geographic Context

The project focuses on arid and semi-arid dryland areas in Borana Zone, Somali Region, South Omo Zone in Ethiopia, as well as Baidoa, Beledweyne, and Jariiban in Somalia- all located within drought-prone rangeland belt of the Horn of Africa. These landscapes are characterized by open grazing systems, sparse vegetation, and highly variable rainfall regimes that depend on short, unreliable wet seasons. Drought vulnerability maps show extremely low vegetation cover (NDVI ~0.3), reflecting severe ecological stress, recurrent feed shortages, and chronic water scarcity. Rainfall distribution is equally uneven: western Borana and parts of South Omo receive slightly higher rainfall, while eastern Ethiopia and most of central/northern Somalia remain persistently dry. The region relies heavily on seasonal rivers, ephemeral ponds, and shallow groundwater, which are rapidly diminishing under rising temperatures and repeated droughts. These transboundary rangelands form interconnected livestock mobility corridors, linking communities across Ethiopia and Somalia but also heightening competition for scarce resources. This geographic reality makes the area one of the most climate-vulnerable dryland systems in the Horn of Africa, requiring integrated, community-led adaptation interventions. South Omo's inclusion reflects its embeddedness in the East African pastoral corridor, where seasonal livestock

mobility links South Omo through Kenya into Somalia's pastoral systems. Livestock mobility is the primary pathway for transboundary zoonotic disease transmission (tuberculosis, brucellosis) that directly threatens Somalia's pastoral resilience. Climate shocks in South Omo force pastoral displacement into Kenya and Somalia, triggering resource competition and conflict escalation. By strengthening South Omo's rangeland governance and adaptive capacity, the project reduces climate-driven pastoral displacement and mitigates disease transmission, resource conflict, and livelihood losses that link South Omo vulnerability to Somalia's pastoral fragility.

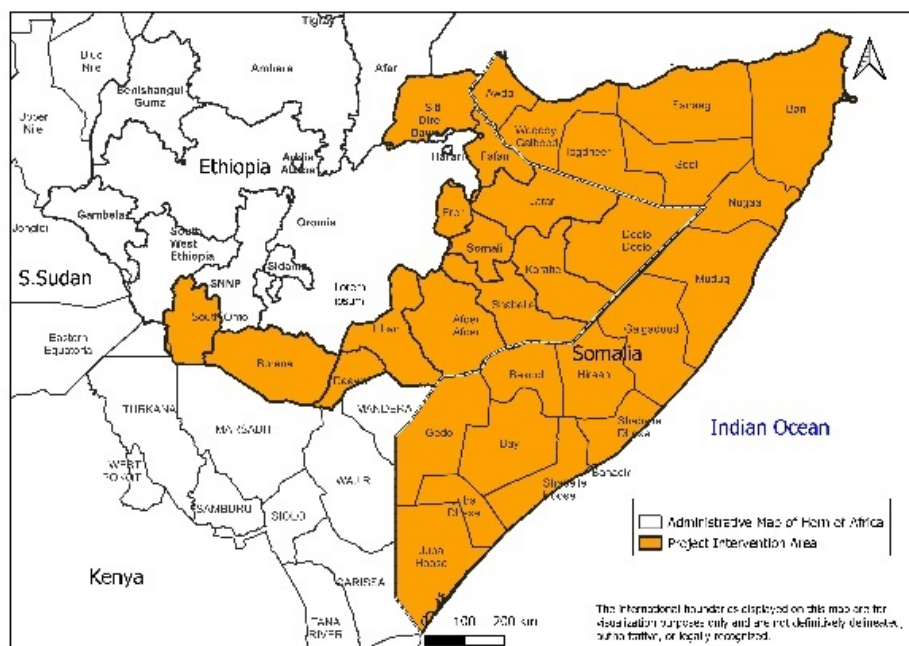


Figure 1: Project intervention areas in the Ethiopia and Somalia

Social Context

Communities in these regions face high levels of social vulnerability driven by limited access to services, weak local governance, and recurring climate-induced displacements. Women and youth play central roles in livestock production, processing, and trade, yet remain excluded from leadership and decision-making. Gender norms, unequal access to finance and markets, and limited voice in governance structures significantly constrain adaptive capacity. Although Ethiopia and Somalia recognize community-level action in policy, the devolution of authority and resources has not been fully realized. The project directly addresses this gap by ensuring that cooperatives, community institutions, women, youth, and marginalized groups are not passive participants but leaders in planning, budgeting, and implementing adaptation actions.

Economic Context

According to the drought vulnerability map (Figure 2, left), the project areas in the Somali and Oromia (Borana) regions of Ethiopia, as well as in Somalia, are classified within zones of high drought vulnerability, as reflected by an NDVI value of approximately 0.3. This high value reflects a serious deficiency in vegetative cover, which serves as a key indicator of ecological stress and water scarcity. The map identifies areas such as the Shabelle and Juba Hoose River basins in Somalia, extending into the Somali and Borana regions of Ethiopia, as particularly vulnerable to the effects of drought. This increased vulnerability presents considerable risks to livelihoods that rely mainly on rain-fed agriculture and pastoralism, highlighting the urgent need for a regional project initiative to enhance resilience in these communities. The rainfall distribution map (Figure 2, right) shows that the amount of rainfall in the project areas is generally low, resulting in sparse pasture vegetation and inadequate conditions for reliable rain-fed agriculture. The northern Somali region of Ethiopia, particularly the Fafan zone, tend to

experience relatively better conditions than the central areas. In Oromia region, especially in Borana Zone, the western areas benefit from comparatively higher rainfall originating from the Oromia highlands, supporting grasslands, whereas the eastern edges merge into the arid Somali lowlands. In the South Omo Zone, localized weather variability contributes to a mosaic of ecosystems, although overall rainfall remains low. In Somalia, southern regions such as Gedo and Juba Hoose receive relatively more rainfall than the arid northern parts, yet they are significantly drier than the Ethiopian highlands. These conditions reinforce the chronic water stress and climate fragility of the project zones.

Development Context and Potentials

Despite these challenges, Ethiopia and Somalia have both articulated ambitious transformation pathways. Ethiopia's Ten-Year Perspective Development Plan (2021-2030), Climate Resilient Green Economy (CRGE), NDC 3.0, LT-LEDS, and National Adaptation Plan (NAP) prioritize climate-resilient agriculture, livestock productivity, and sustainable rangeland use. The Agriculture and Rural Development Policy (2024) and National Livestock and Fisheries Extension Strategy and Roadmap (2023-2033) specifically aim to improve productivity and commercialization within the livestock sector. Similarly, Somalia's NDC and NAP emphasize adaptation in pastoral systems, water management, and climate-smart livestock production. The National Transformation Plan (NTP) and the Livestock Sector Development Strategy (LSDS- 2020-2030) seek to restore Somalia's status as a leading livestock exporter by enhancing animal health, value chains, and market access. Regionally, the Drought Disaster Resilience and Sustainability Initiative (IDDRSI) of the Intergovernmental Authority on Development (IGAD) in Eastern Africa, offers a structured framework for cross-border cooperation related to drought management, Rangeland Health, and livestock movement and international partners, including the World Bank, FAO, IFAD, ILRI, and ICARDA, are advancing these regional development strategies.

These policies offer strong potential for scaling agro-innovation and livestock systems; however, implementation gaps persist due to weak institutional and technical capacity, underdeveloped community-based rangeland management, and constrained market access, climate finance, and early warning systems. Additionally, limited decentralized capacity, fragmented funding, and poor coordination among federal, regional, and community-level institutions, insufficient regulatory enforcement, and limited public investment in the pastoral economy significantly affect development effects. These systemic gaps are compounded by fragile ecosystems, transboundary pressures on grazing resources, and institutional readiness constraints, which hinder the implementation of scalable climate solutions. The project plans to tackle these issues by delegating decision-making and resources to community cooperatives, acting to implement these higher-level policies and the project seeks to bridge these gaps by functioning as a mechanism that provides patient, predictable, and accessible funding and capacity support directly to local actors. By working through and strengthening existing community institutions, the project will ensure that financial and technical resources are allocated based on locally identified priorities rather than externally driven agendas. This in turn helps to root national and regional policies in local realities and priorities, thereby enhancing their sustainability and overall impact

Environmental and Climate Context

The cross-border lowland regions of Ethiopia and Somalia are among the world's most climate-vulnerable dryland ecosystems. Both countries are repeatedly identified as climate hotspots, with the frequency, severity, and unpredictability of climatic shocks intensifying over the past decades (IPCC, 2022). Drought cycles that once occurred every 7–10 years now recur every 2–3 years, leaving rangelands degraded, water sources depleted, and pastoral and agro-pastoral livelihoods increasingly under pressure. Concurrently, episodic floods and erratic rainfall patterns disrupt grazing systems, damage infrastructure, and limit mobility, which is seen as an essential coping strategy for pastoral communities.

The project's target areas, i.e., Borana Zone, Somali Region, and South Omo Zone in Ethiopia, together with adjacent Somalia territories, are characterized by fragile rangeland ecosystems where land degradation is both a driver and consequence of climate stress. Declining vegetation cover, invasive species encroachment, and overgrazed communal lands diminish the availability of quality forage and

critically undermine livestock productivity. These stresses intersect with socio-economic vulnerabilities, heightening the risk of displacement and exacerbating competition over scarce natural resources.

Despite these challenges, the landscape holds substantial potential for climate-resilient transformation. Pastoral and agro-pastoral borderlands are naturally suited for regenerative rangeland restoration, the introduction of drought-tolerant forage species, and the adoption of climate-smart livestock systems, particularly for small ruminants and camels, which are more resilient to dryland conditions. When combined with strengthened governance systems, improved mobility arrangements, and reliable access to markets and climate information, these areas can evolve into hubs of resilience-building and regional economic integration.

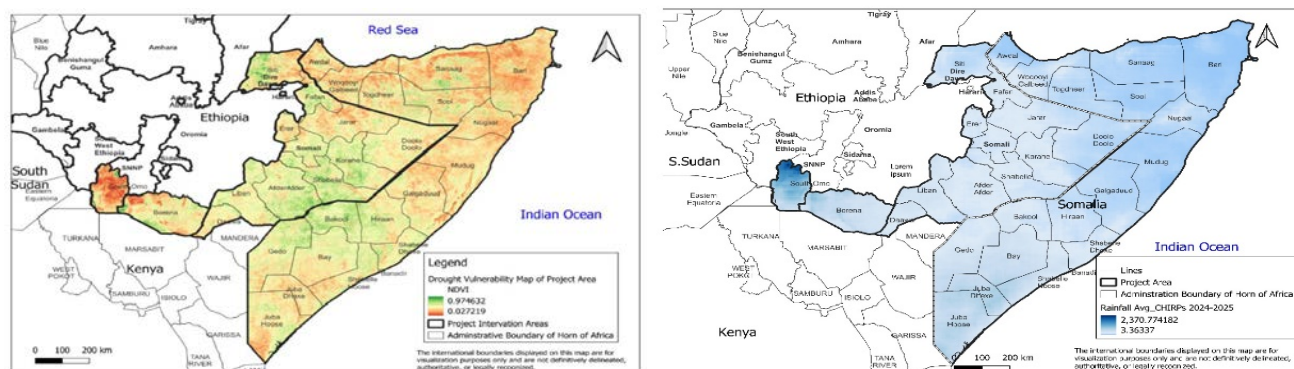


Figure 2: Drought Vulnerability map of the project areas (NDVI: Left) and Current rainfall patterns across Ethiopia (Borana, Somali Region, and South Omo) and Somalia (Right).

Project/Programme Objectives

The project aims to strengthen the climate resilience and adaptive capacity of vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia's arid and semi-arid rangelands. It promotes sustainable livelihoods through climate-smart rangeland and livestock interventions, focusing on small ruminants and camels. By scaling proven innovations, expanding access to finance, and strengthening regional trade, the project will empower communities across the region to lead climate adaptation efforts and build more resilient dryland systems. Thus, the project will mainly focus on enhancing climate-resilient rangeland and livestock (small ruminant & camel) systems and agro-innovation through community-based approaches. The project intended development impact will be achieved through the following specific objectives:

- Strengthen adaptive governance and local decision-making: to ensure meaningful participation of women, marginalized and vulnerable communities (MVCs) in climate adaptation design and decision-making.
- Restore and sustain rangeland ecosystems through community action.
- Enhance climate-resilient livestock production and inclusive markets.
- Expand access to climate finance and risk management.
- Expand the uptake of locally relevant technologies.
- Strengthen knowledge transfer and learning mechanisms. Advance regional integration and economic resilience.

The project contributes to eight Adaptation Fund outcome areas that collectively strengthen resilience across the Ethiopia–Somalia drylands. It advances **Outcome 1** by reducing exposure to climate hazards through improved risk assessments, early warning systems, and climate advisory services used by pastoral and agro-pastoral communities. It strengthens **Outcome 2** by building institutional capacity among cooperatives, community-based organizations, and public institutions to manage climate risks and access adaptation finance, and supports **Outcome 3** by increasing awareness, ownership and engagement of communities in the adaptation and climate risk reduction processes. The project further

advances **Outcome 4** by strengthening climate-resilient development services and small-scale infrastructure, particularly climate-smart water systems that enhance adaptive capacity under increasing climate variability.

The project contributes to **Outcome 5** by restoring and improving the management of degraded rangelands, enhancing ecosystem resilience and critical ecosystem services. It strengthens **Outcome 6** by diversifying and reinforcing climate-resilient livelihoods through improved breeding systems, climate-smart livestock husbandry, inclusive value-chain development, and digital market and advisory services that stabilize and increase incomes. The project advances **Outcome 7** by integrating climate-resilient rangeland and livestock management into national and regional policies and institutionalizing Ethiopia–Somalia–IGAD cross-border coordination mechanisms. Finally, it contributes to **Outcome 8** by enabling innovation and scale-up through community-centered digital, geospatial, financial, and learning innovations that strengthen long-term adaptation capacity.

Project/Programme Components and Financing

Table 1: Summary table of project components and financing

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$ million)
1. Institutional and Technical Capacity Strengthening	Outcome 1.1: Local institutions, communities, and cooperatives empowered with devolved authority and skills for coordinated, community-led rangeland and livestock management under climate change.	Output 1.1.1: National and regional regenerative rangeland master plans co-developed with communities and integrated into policy.	Ethiopia & Somalia	1,700,000
		Output 1.1.2: Community-based organizations and cooperatives established, strengthened, and directly resourced to take up adaptation actions.		2,137,231
		Output 1.1.3: Inclusive regional and national learning platforms operational for continuous community-to-community knowledge exchange.		745,749
2. Community-Based and Inclusive Rangeland Resource Management	Outcome 2.1: Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.	Output 2.1.1: Innovative and community led financing models for rangeland restoration implemented and scaled.	Ethiopia & Somalia	3,310,939
		Output 2.1.2: Community based nurseries and cooperatives for propagation of drought-tolerant native forage species established		1,250,000
	Outcome 2.2: Rangeland health improved through inclusive, community-driven management systems.	Output 2.2.1: Participatory rangeland monitoring systems established to guide adaptive, decision-making.		1,000,000
		Output 2.2.2: Small-scale, climate-smart water harvesting structures built and maintained through community stewardship.		2,300,000
3. Innovative and Inclusive Livestock (Small Ruminant & Camel) Production	Outcome 3.1: Climate-smart small ruminant and camel systems enhanced, resulting in strengthened and resilient livelihoods.	Output 3.1.1: CBBPs, husbandry, and health innovations are scaled	Ethiopia & Somalia	3,000,000
		Output 3.1.2: Community-oriented digital, advisory, and market systems (user-friendly digital tools and advisory services)		2,700,000

		established to support inclusive decision-making.		
		Output 3.1.3: Livestock value chains strengthened through inclusive enterprises and partnerships with women, youth, and MSMEs.		3,550,000
4. Regional Cooperation & Digital Innovation for Early Warning	Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management.	Output 4.1.1: Community-inclusive regional platforms and cross-border coordination mechanisms institutionalized.	Ethiopia & Somalia	1,509,862
		Output 4.1.2: Geospatial and AI-enabled monitoring systems deployed with community data inputs; interoperable early warning services operational.		1,004,000
		Output 4.1.3: Financial innovations and community-accessible market intelligence systems established.		1,046,000
5. Project/Programme Execution Cost				2,018,947
6. Total Project/Programme Cost				27,272,728
7. Programme Cycle Management Fee				2,727,272
Total Amount of Financing Requested				30,000,000

Projected Calendar:

Table 2: Project milestones

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2028
Mid-term Review (if planned)	June 2030
Project/Programme Closing	January 2033
Terminal Evaluation	December 2032

PART II: PROJECT/PROGRAMME JUSTIFICATION

Project/Programme Component Description

The project strengthens climate resilience in Ethiopia and Somalia by empowering local institutions, pastoral and agropastoral communities, and cooperatives to manage rangelands and livestock more effectively under climate stress. It builds strong governance foundations through shared rangeland master plans, capacity building, and inclusive learning networks. Through upgraded national and regional EWSs, the project will build adaptive capacities of the vulnerable communities in the project locations by engaging them in regenerative rangeland restoration, water and forage development, and participatory monitoring to reverse degradation, and access to climate information. Climate-smart livestock practices, digital advisory tools, and inclusive value chains improve productivity and incomes.

At the regional level, coordinated platforms, interoperable early warning systems, and financial innovations support cross-border risk management. In general, these actions create a coherent, community-driven system that enhances ecosystem health, strengthens livelihoods, and supports long-term climate resilience.

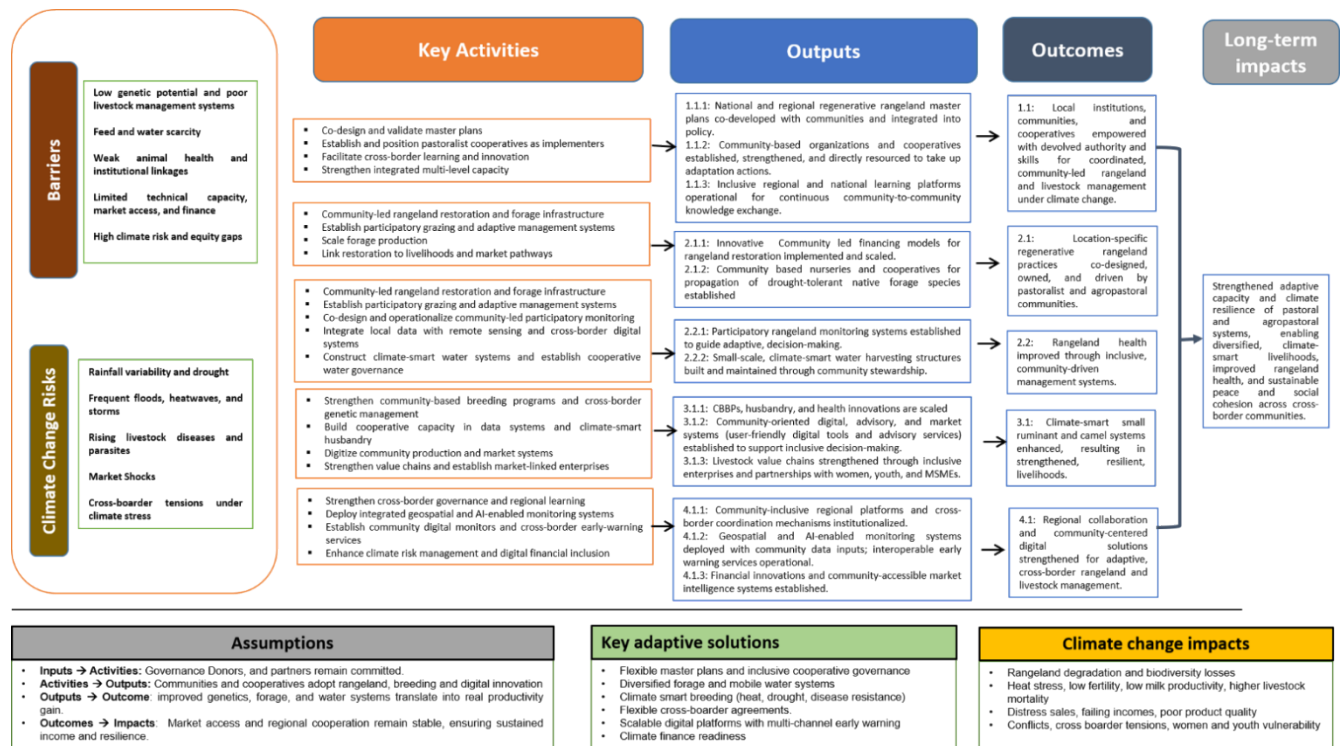


Figure 3: Project theory of change

This proposal constitutes a regional adaptation intervention jointly implemented in Ethiopia and Somalia and is distinct in scope and function from national projects. The regional project focuses exclusively on transboundary climate risks, shared dryland systems, and regional public goods that cannot be effectively addressed through a single-country intervention. Its scope is limited to cross-border governance, harmonized rangeland and livestock systems, interoperable regional digital and early warning platforms, regional CBBPs and coordination mechanisms facilitated by IGAD.

By contrast, national projects focus on country-specific service delivery, institutional embedding, and finance readiness within the countries, including national livestock health services, water point rehabilitation, fodder banks, national climate advisories, and integration into national NAPs, NDCs, and public finance systems. The regional project strengthens national projects by supporting finance readiness within the countries, including national livestock health services, water point rehabilitation, fodder banks, national climate advisories, and integration into national NAPs, NDCs, and public finance systems, through a specialized enabling support system including enabling access to finance for community based rangeland restoration, community forage nurseries development, and climate-smart water harvesting structures. This regional initiative is therefore complementary to national projects, with regional efforts establishing enabling systems and standards that are subsequently applied and institutionalized at the national level. Component 2 combines national-scale pastoral infrastructure investments with regional cross-border coordination systems, ensuring alignment with national priorities while establishing transboundary pastoral governance standards. Complementing these national investments, Component 2 also establishes regional enabling systems and cross-border standards that operationalize harmonized pastoral management across Ethiopia-Somalia shared corridors. These include participatory rangeland monitoring systems combining community data with remote sensing to guide adaptive decisions; cross-border digital monitoring platforms enabling coordinated action and early warning across shared pastoral zones; and harmonized grazing protocols and restoration practices

standardized across both countries' pastoralist communities. These regional public goods are financed through cross-border technical support and digital infrastructure and will be institutionalized through regional coordination mechanisms under Component 4, creating enabling conditions for national investments to operate coherently within a unified, transboundary pastoral governance framework.. This regional initiative is therefore complementary to national projects, with regional efforts establishing enabling systems and standards that are subsequently applied and institutionalized at the national level.

Somalia and Ethiopia: Underlined Problems

Somalia and Ethiopia face recurrent droughts, floods, and erratic rainfall that degrade rangelands, intensify water scarcity, and weaken livestock-based livelihoods. Pastoralists, agro-pastoralists, women, and youth are most affected, facing livestock losses, declining productivity, and deepening poverty. These climate pressures are compounded by weak husbandry systems, poor veterinary services, limited finance and market access, and fragmented institutional coordination.

This regional project addresses these challenges through four integrated components that deliver concrete climate adaptation actions. It promotes climate-smart livestock systems by scaling adaptive breeding, feeding, and animal health innovations for small ruminants and camels' species best suited to drylands. Regenerative rangeland management and water harvesting systems restore degraded ecosystems, improve forage and water availability, and reduce drought vulnerability. Digital monitoring and GeoAI-based early warning tools provide real-time data on rangeland conditions, disease, and climate risks, enabling faster and evidence-based decision-making. Inclusive market systems and access to finance strengthen the economic resilience of women, youth, and cooperatives through value addition, traceability, and digital financial services.

The regional approach creates added value by harmonizing rangeland and livestock management across borders, linking early warning and market systems between Ethiopia, and Somalia. Shared digital platforms, cross-border breeding programs, and joint policy frameworks ensure consistent standards, reduce duplication, and foster collective action against transboundary climate threats. This integration not only lowers adaptation costs but also enhances data interoperability, resource sharing, and regional trade. Overall, these coordinated regional interventions build resilience at scale, i.e., restoring ecosystems, stabilizing livelihoods, and strengthening institutions to shift communities from crisis response to proactive, climate-informed adaptation and long-term regional stability.

Component 1: Institutional and Technical Capacity Strengthening

This component forms the foundation of the project, addressing the weak institutional capacity, fragmented governance, and limited technical expertise that have hindered effective rangeland management and livestock innovation in Ethiopia and Somalia. It builds the institutional and technical backbone for long-term climate resilience through three priorities: (i) developing and mainstreaming climate-smart rangeland masterplans; (ii) strengthening cooperatives and community organizations to manage resources, represent local interests, and evolve into viable business hubs; and (iii) promoting multi-level knowledge exchange for continuous learning and cross-border coordination. Under this regional project, institutional strengthening is limited to cross-border coordination, harmonized rangeland governance frameworks, and regional learning mechanisms, and does not finance national institutional reform, staffing, or service delivery functions.

By transforming cooperatives into drivers of enterprise, service delivery, and market access, this component enhances governance while creating opportunities for income diversification, employment, and investment. It underpins the success of ecological restoration (Component 2), production and market innovations (Component 3), and regional digital collaboration (Component 4), ensuring that all interventions are coherent, scalable, and grounded in evidence-based decision-making.

Implementation Arrangements: ATI (Ethiopia) and East-Agro (Somalia) will lead masterplan development and cooperative strengthening. UNIDO will provide capacity building for the local institutions, technical support CBOs and cooperatives, while ICARDA delivers scientific evidence in

strengthening the development of the masterplan and institutional capacity building programs. Local institutes, cooperatives, and NGOs will ensure community-led implementation and sustainability at the grassroot level. This component will be implemented through collaboration with the countries counterpart including the MoLFR (Somalia) and MoA (Ethiopia)..

Outcome 1.1: Local institutions, communities, and cooperatives empowered with devolved authority and skills for coordinated, community-led rangeland and livestock management under climate change.

This outcome strengthens the technical and governance capacity of institutions, cooperatives, and communities to plan and manage rangeland and livestock systems sustainably. By aligning national masterplans with devolved local authority and regional knowledge exchange, it promotes coordinated, community-led action, reduces institutional fragmentation, and builds long-term climate resilience.

Output 1.1.1: National and regional regenerative rangeland master plans co-developed with communities and integrated into policy.

Rangeland master plans prevent fragmented rehabilitation by integrating rotational grazing, livestock mobility, and dryland restoration into climate-smart national and cross-border frameworks.

These master plans address shared rangeland systems and cross-border mobility corridors and are distinct from national rangeland and livestock strategies. Co-developed through assessments, mapping, and stakeholder consultations, they ensure coordinated, sustainable, and long-term action. Key activities include:

- Co-design and validate national and regional master plans of coordinated management and investment planning of border rangeland zones where herds migrate seasonally: conduct baseline assessments and spatial mapping, followed by inclusive consultations with ministries, IGAD, ATI (Ethiopia), East-Agro (Somalia), research institutions, cooperatives, and pastoralists, and finalize through national and regional validation workshops.
- Integrate Master Plans into National and Cross-Border Policy Frameworks: Facilitate formal adoption of the validated regenerative rangeland master plans into national adaptation, development, and cross-border coordination frameworks to guide locally led rangeland governance and implementation.

Output 1.1.2: Community-based organizations and cooperatives established, strengthened, and directly resourced to take up adaptation actions.

This output empowers pastoralist cooperatives and community organizations to participate in inclusive governance, rangeland restoration, and livestock innovations, while managing community-driven data to support sustainable, locally owned climate adaptation across the region. Key activities include:

- Strengthen and professionalize cooperatives: establish and build the capacity of pastoralist cooperatives through training in governance, leadership, finance, and business planning. Ensure inclusive participation of women and youth and provide practical manuals and toolkits to embed best practices.
- Position cooperatives as local implementing partners: Empower cooperatives and community organizations to lead rangeland restoration, livestock pilots, enterprise development, and digital data collection through structured mentorship and market-linked operational support.

Output 1.1.3: Inclusive regional and national learning platforms operational for continuous community-to-community knowledge exchange.

Peer-to-peer and cross-border exchanges, pastoral field schools, and the annual Pastoralist Innovation Forum will enable communities to share lessons, scale innovations, and harmonize rangeland, livestock, and digital solutions across Ethiopia and Somalia. Key activities include:

- Facilitate community-to-regional learning: Support peer-to-peer and cross-border Ethiopia–Somalia exchanges, annual Pastoralist Innovation Forums, and Pastoral Field Schools.
- Document local innovations in case studies and toolkits to enable continuous, community-led learning and scaling of climate-smart rangeland and livestock practices.
- Strengthen multi-Level capacity and knowledge integration: Build governance and technical capacities from community institutions to national ministries, ensuring all knowledge-sharing systems are aligned with rangeland restoration (Component 2), livestock innovation (Component 3), and digital monitoring (Component 4) for coherent, harmonized, and locally led but regionally implemented programs.

Component 2: Community-based and inclusive rangeland resource management

Building on Component 1, this component restores degraded rangelands, secures water for communities and livestock, and promotes equitable grazing governance. Restoration combines natural regeneration, drought-tolerant reseeding, rotational grazing, and erosion control. Women and youth lead forage propagation, while community monitors use digital tools for adaptive management. Climate-smart water systems enhance access. These actions stabilize feed and water, reduce livestock losses and conflict, improve soil productivity, and accelerate adoption of harmonized restoration practices across shared drylands.

Implementation arrangements: ATI (Ethiopia) and UNIDO and East-Agro (Somalia's Executing Entities) will lead rangeland, forage, and water management, with technical counterpart ministries, including MoLFR (Somalia) and MoA (Ethiopia) for rangeland and forage management, and MoAI (Somalia) and MoA (Ethiopia) for water infrastructure, ensuring sectoral coordination and policy integration. ICARDA will provide science and digital tools (satellite monitoring, GIS analytics, climate modelling), regenerative rangeland management and rangeland health monitoring, and coordinate with local research institutes. Cooperatives, customary institutions, and NGOs will manage restoration activities, grazing protocols, and forage nurseries, ensuring inclusive, sustainable, and market-linked dryland livelihoods.

Outcome 2.1: Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.

This outcome enables pastoralist and agro-pastoral communities to restore and manage rangelands using science-informed practices adapted to the specific localities, while leveraging indigenous knowledge to ensure sustainability of the adaptation solutions. Rotational grazing, reseeding, and erosion control improve soil, water, and pasture productivity, enhancing food security, drought resilience, and sustainable livestock livelihoods.

Output 2.1.1 Community led financing models for rangeland restoration implemented and scaled.

Communities co-design and carry out restoration activities, i.e., assisted regeneration, reseeding, rotational grazing, supported by soil and water conservation. RIPs and PFSs foster learning and link restoration to fodder and livestock markets. Key activities include:

- Inclusive Planning and Restoration of Rangelands: Communities will be facilitated to identify and prioritize restoration sites, implement assisted natural regeneration and reseeding of native forages and shrubs, and apply soil and water conservation measures such as half-moons, bunds, and micro-catchments.
- Establish Participatory Grazing and Adaptive Management Systems: Cooperatives and customary leaders will develop and enforce grazing calendars, manage seasonal resting

and rotation, and use regenerative innovation platforms (RIPs) for joint planning, monitoring, and adaptive learning.

- **Link Restoration to Livelihoods and Market Opportunities:** Regenerative agro-pastoral practices will be promoted, and restored rangelands will be connected to fodder production and livestock fattening enterprises, creating incentives and market pathways aligned with Component 3.

Output 2.1.2: Community based nurseries and cooperatives for propagation of drought-tolerant native forage species established.

Local communities, cooperatives, and women's and youth groups will be engaged to propagate native drought-tolerant forage species in locally managed nurseries. These forages will be distributed across restored rangelands to enhance dry-season feed availability and strengthen the climate resilience of livestock-dependent households. Key activities include:

- **Establish and manage community-based forage nurseries:** Set up nurseries run by cooperatives, women's groups, and youth to propagate native drought-tolerant forage species.
- **Expand forage production across rangelands:** Provide training in seed collection and forage management and scale distribution of improved forage to support local grazing and dry-season feed reserves.

Outcome 2.2: Rangeland health improved through inclusive, community-driven management systems.

This outcome strengthens rangeland health and productivity through inclusive, community-driven management. Adaptive, data-informed practices, coupled with equitable water systems, restore ecosystems, support livestock growth, reduce mortality and distress sales, and help mitigate resource-based conflicts during droughts.

Output 2.2.1: Participatory rangeland monitoring systems established to guide adaptive decision-making.

This output establishes participatory rangeland monitoring that combines community observations with remote sensing. Trained monitors track rangeland, water, and livestock conditions, sharing data via dashboards to guide adaptive decisions and align Ethiopia–Somalia systems under Component 4 for locally led, evidence-based management. Key activities:

- **Co-define and collect locally relevant rangeland data through community monitors:** Communities, cooperatives, and technical partners will jointly identify priority indicators and train/equip community rangeland monitors to collect standardized field data using mobile apps, GPS tools, and AI-assisted systems to track pasture, water, and herd conditions.
- **Integrate local and regional data with remote sensing and co-design adaptive dashboards:** Community observations will be combined with satellite and UAV imagery, and local institutions will co-develop simple, user-friendly dashboards that visualize trends and support locally led adaptive decisions such as rotational grazing, feed reserves, or early water mobilization.
- **Operationalize a cross-border digital monitoring platform for coordinated action:** Local data and dashboards will feed into the regional platform under Component 4, enabling alerts, early measures, and harmonized monitoring protocols across shared Ethiopia–Somalia corridors to strengthen cross-border learning and coordinated rangeland management,

Output 2.2.2: Small-scale and climate-smart water harvesting structures built and maintained through community stewardship.

Water scarcity threatens livestock, rangelands, and livelihoods. This output enables vulnerable communities, with local authorities and cooperatives, to plan, build, and maintain small-scale, climate-smart water harvesting structures, strengthening resilience and protecting fragile ecosystems. Key activities include:

- Co-identify and construct climate-smart water harvesting systems through participatory planning: Communities and local authorities will jointly identify priority sites and construct small-scale, climate-smart water systems such as micro-basins, ponds, sand/subsurface dams, and solar-powered lifting systems designed to enhance pasture recovery, improve herd health, and reduce ecosystem pressure.
- Improve livestock welfare through locally responsive water point design: Technical partners and communities will co-design features such as shaded waiting areas and strategically located troughs to reduce heat stress, manage livestock flow, and minimize trampling and evaporation, ensuring systems are suited to local pastoral needs.
- Establish inclusive, cooperatives-led water governance and maintenance systems: Cooperative-based water-user groups will manage access, fees, and routine maintenance, integrating customary norms, transparent recordkeeping, equitable participation of women and youth, and conflict-sensitive practices to ensure sustainable and peaceful use of water points.

Component 3: Innovative and inclusive livestock production for resilient livelihoods

This component turns the ecological and institutional foundations built earlier into climate-resilient livelihood gains. The marginalized and vulnerable communities and MSMEs will lead breeding, fattening, and value-addition activities, supported by local potential partners. Under the regional project, support is limited to regional and cross-border dimensions of livestock innovation, including harmonized breeding standards, cross-border sire exchange, shared digital traceability systems, and regional learning among CBBPs; country-level herd health delivery, vaccination campaigns, aggregation hubs, and national commercialization are not financed under this component and are instead supported through national projects.

Implementation arrangements: ICARDA will provide scientific evidence-based best practices and digital tools (satellite rangeland monitoring, climate modelling, GIS analytics), while UNIDO leads the development and operationalization of value addition and aggregation facilities across both countries. In Ethiopia, ATI will ensure inclusion and enterprise support; while in Somalia, UNIDO and East-Agro (Somali EE) will lead inclusion and enterprise support, working with the Somali Chamber of Commerce, cooperative federations, and accredited Somali NGOs to embed market linkages and livelihood diversification. IGAD will coordinate cross-border standards and pastoral certification protocols. This coordination approach ensures delivery of vulnerable communities and local institutions' driven, climate-smart livestock and rangeland systems that strengthen community and ecosystems resilience, with implementation anchored in each country's institutional capacity and partner networks.

Outcome 3.1: Diversified climate-smart small ruminant and camel systems strengthen livelihoods.

Adaptive breeding, inclusive innovations, and market linkages boost productivity, incomes, jobs, and resilience to climate shocks.

Output 3.1.1: Community-based breeding programs (CBBPs), husbandry, and health innovations are scaled.

The project will establish CBBPs to produce climate-resilient animals with improved growth, milk yield, fertility, and disease resistance. Cooperative-managed flocks, supported by DTREO tagging and data systems, supply improved sires locally and across borders. Cross-border sire exchange and harmonized breeding protocols supported under this output are designed to complement, but not duplicate, national

CBBPs and livestock productivity investments. Feed resources developed in one country could be traded in the other, fostering regional integration and expanding market opportunities. Training in feeding, reproduction, health, and early-warning systems supports the long-term sustainability of community-led breeding programs. This output will be achieved through the following key activities.

- **Expand Inclusive CBBPs:** Pastoral and agropastoral communities, including women- and youth-led groups, will jointly define breeding objectives and manage nucleus flocks for sheep, goats, and camels, ensuring access to climate-resilient animals and strengthening locally led cross border breeding systems.
- **Strengthen Cooperative Data Systems and Sire Dissemination:** Cooperatives will be trained in tagging, recordkeeping, and use of the DTREO platform for genetic evaluation. Structured local and cross-border sire exchange and rotation across Ethiopia and Somalia will help maintain genetic diversity and reduce inbreeding risks.
- **Build Community Capacity in Climate-Smart Husbandry and Health Services:** Communities will receive training in feeding, reproduction, animal health, and camel husbandry. Locally relevant drought, heat, and disease early-warning information, combined with investments in forage and water, will support adaptive, climate-resilient livestock production across the region.

Output 3.1.2: Community-oriented digital, advisory, and market systems are established to support inclusive, data-driven decision-making.

Digital tools provide traceability, real-time market and climate information, and early-warning for disease and rangeland conditions. Aggregation centers improve storage, grading, and product quality, while youth enumerators generate reliable data, enhancing cooperative credibility and expanding market access. Key activities include:

- **Promoting digitize community level breeding production systems:** Introduce mobile applications for recording breeding, production, and sales data, linked to a traceability and tagging system that enhances transparency, supports predictive decision-making, and strengthens buyer confidence in domestic and export markets.
- **Strengthening digital market and information systems:** Establish a digital market information system with real-time dashboards on prices, demand, and climate conditions. Youth enumerators will manage data entry and provide digital services at community level, improving data reliability and creating livelihood opportunities.
- **Upgrade aggregation and early-warning infrastructure:** Develop or improve aggregation centers with bulking, grading, chilling, and storage facilities, located near restored rangelands and water points. Integrate disease surveillance and rangeland monitoring data into the digital platform to enhance adaptive management and early warning for producers and cooperatives.

Output 3.1.3: Livestock value chains strengthened through inclusive enterprises and partnerships with women, youth, and MSMEs.

Women, youth, MSMEs, and cooperatives will lead livestock enterprises in meat, milk, hides, feed, and eco-tourism. Participatory planning, mentorship, and digital finance tools will improve access to credit and climate funds. Local processing, regional sire exchanges, and harmonized grading will enhance market access, investment, and climate-resilient livelihoods. Key activities include:

- **Support community-based livestock enterprises:** Enable women, youth, MSMEs, and cooperatives to establish and grow livestock enterprises (milk and meat processing, hides and skins, feed, eco-tourism, and livestock services) through participatory business planning, mentorship, and digital finance tools.

- Strengthen processing and market systems: Embed processing facilities near aggregation hubs to reduce costs and losses, meet hygiene and export standards, and enhance competitiveness through regional sire exchanges and harmonized health and grading standards.
- Build partnerships and market linkages: Promote South–South learning, exchange visits, and business-to-business linkages, while fostering PPPs with ICT firms, banks, agribusinesses, and UNIDO-supported infrastructure to expand investment flows, improve market access, and sustain innovations.

Component 4: Regional Cooperation and Digital Innovations for Early Warning Systems

Component 4 delivers regional public goods by strengthening cross-border cooperation, interoperable digital systems, and regional early warning services across Ethiopia and Somalia. It does not finance national early warning dissemination, insurance payouts, or country-specific climate information services. The focus here is on data interoperability, regional GeoAI platforms, and IGAD-led coordination mechanisms that enable coherent cross-border action.

Implementation arrangements: IGAD leads regional policy coordination, ATI, East-Agro and ICARDA drive digital and AI-based monitoring, while national ministries, local cooperatives, research institutes, and pastoralist groups support data collection, alignment, and community engagement.

Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management.

Rangeland and livestock management in Ethiopia, Somalia, and the IGAD region suffers from fragmented policies, weak cross-border coordination, and isolated early warning systems. This outcome strengthens regional collaboration, deploys interoperable digital tools linking early warning with market and financial services, and enables evidence-based, proactive management that reinforces restoration, productivity, and community-led actions.

Output 4.1.1: Community-inclusive regional platforms and cross-border coordination mechanisms institutionalized.

The project will convene Ethiopia–Somalia–IGAD dialogues and establish joint monitoring committees for shared rangelands and livestock corridors. Annual forums, policy dialogues, and South–South exchanges will harmonize adaptation strategies, reduce transboundary conflicts, build trust, and promote coordinated dryland practices across borders. Key activities include:

- Strengthen cross-border governance and policy alignment: Convene Ethiopia–Somalia–IGAD dialogues and joint monitoring committees with pastoralist representation and hold annual forums to harmonize adaptation strategies and reduce conflict risks.
- Enhance participatory regional learning: Support exchange visits and south–south learning for cooperatives, women's and youth groups, extension agents, and policymakers to share and scale community-led dryland practices.

Output 4.1.2: Geospatial and AI-enabled monitoring systems deployed with community data inputs; interoperable early warning services operational.

This output integrates satellite and community data for real-time monitoring of rangelands, water points, and livestock movement. Youth and cooperatives act as digital monitors, while interoperable data-sharing between Ethiopia and Somalia enables timely alerts and coordinated cross-border action. Key activities include:

- Deploy integrated geospatial and AI-enabled monitoring systems: Apply ArcGIS, QGIS, and Google Earth Engine to map grazing routes, water points, and mobility corridors, and use AI analytics to merge community field data with satellite indicators (MODIS, Sentinel, ASIS,

VCI/VHI) for real-time rangeland and drought monitoring. The detailed governance structures, regional data protection protocols, and data ownership frameworks will be undertaken during the PFG phase. This concept note establishes the foundational principle and institutional partnerships. The full operationalization of governance architecture, including data stewardship arrangements, inter-institution coordination protocols, and regional data-sharing agreements, will be finalized during project formulation when detailed technical and fiduciary assessments can inform robust, context-appropriate design.

- Train community digital monitors and operationalize interoperable early-warning services: Train youth and cooperatives as digital rangeland monitors and establish Ethiopia–Somalia data-sharing protocols to deliver real-time alerts and support coordinated early actions at community level.

Output 4.1.3: Financial innovations and community-accessible market intelligence systems established.

Index-based livestock insurance and digital market platforms will provide drought protection and connect pastoralists to buyers, credit, and market information, reducing climate and market risks and strengthening commercialization pathways. Key activities include:

- IBLI for Drought Protection: Deploy Index-Based Livestock Insurance (IBLI) using NDVI/forage indices to protect pastoralist households from drought-related livestock losses and reduce climate vulnerability.
- Digital Market and Finance Platforms: Establish community-accessible systems such as LMIS and agri-fintech platforms (DigiFarm, FarmDrive) to link producers with buyers, credit, and financial services, strengthening market access and commercialization.

Project coordination and monitoring

The effective coordination across multi-country and multi-component activities requires a tiered, geographically distributed coordination structure. Thus, a Regional Program Coordination Unit (R-PCU) led by UNIDO and hosted in the ICARDA Campus in Addis Ababa, leveraging existing institutional infrastructure, secure connectivity, and neutral regional positioning. The R-PCU will be mirrored by National Project Coordination Units (N-PCUs) in Ethiopia (hosted by ATI) and Somalia (hosted by UNIDO and East-Agro as joint Executing Entities), with the Mogadishu N-PCU operating under NCF oversight as specified by counterparts.

Coordination Architecture: The R-PCU coordinates strategic alignment, cross-border workplan harmonization, and IGAD liaison. Each N-PCU Unit manages in-country inter-ministerial coordination, stakeholder engagement, and activity sequencing within their respective government structures and federal/state contexts. Monthly coordination forums link the R-PCU with both N-PCUs to resolve bottlenecks, share lessons, and sequence activities for maximum synergy. The R-PCU office serves as the direct operational focal point to UNIDO as the Implementing Entity, providing consolidated program reporting, consolidated workplan oversight, and consolidated monitoring dashboards. Each N-PCU head (ATI in Ethiopia; UNIDO-East-Agro designated coordinator in Somalia) reports functionally to the R-PCU officer while maintaining institutional accountability to their host ministry/EE. This three-tier structure ensures that national sovereignty, federal/state coordination requirements, and cross-border harmonization are all operationalized without fragmenting program coherence.

Monitoring and evaluation will be embedded throughout the program to strengthen accountability, adaptive learning, and community ownership. A results-based framework will track progress using quantitative indicators (e.g., restored hectares, households adopting improved breeds, cooperatives registered) and qualitative measures (e.g., inclusiveness, governance quality). Digital dashboards and geospatial tools will enable real-time monitoring of rangeland conditions, livestock performance, and market participation, supporting rapid decision-making from community to regional levels. Mid-term and final independent evaluations will assess overall impact, while participatory monitoring involving

cooperatives, women's and youth groups will ensure transparency and reinforce locally led adaptation at the grassroots level.

A. Programme/Project contribution to new and innovative solutions, approaches, technologies and mechanisms for climate change adaptation

The project has been developed to promote innovation and disseminate technological solutions to combat vulnerability facing agro-pastoral and pastoral communities in past Ethiopia and Somalia and build their resilience to climate change. It draws on multiple synergies and mechanisms that foster inclusive participation of the target beneficiary communities, regional bodies and technology providers to bring about change.

Innovative mechanisms for inclusive uptake of climate-smart adaptation technologies and solutions

Addressing structural inequalities: The project directly addresses the historical exclusion of women, youth, and marginalized people. This builds on obligatory leadership quotas for women and youth on cooperatives, the formation of women centric and youth focused CBBPs, and gender-transformative practices. Pastoral Field School (PFS) empowers women in leadership, encourage shared decision making, equalize access to resources, support economic empowerment, foster trust and community building. There is specific outreach for small grants to these groups to make it easier for them to participate and to ensure that they benefit from and contribute to the planning of adaptation, while reducing power imbalances currently in place. Furthermore, community-based organizations (CBOs) and cooperatives will be facilitated to implement rangeland management, breeding programs, and enterprise development.

Country specific and regional context based PFS curricula will be co-developed with both countries' pastoralists, herder associations, customary leaders, and clan governance representatives, ensuring the content reflects national and regional pastoral knowledge systems, rangeland management practices, and clan-based resource governance arrangements. The PFS materials will be delivered in local languages relevant to the project locations (i.e. Somali, Afan Oromo, and South Omotic) with locally adapted modules on water management, drought-resilient forage production, and livestock mobility corridors specific to Somalia's agro-ecological zones and pastoral institutions. Community and clan opinion leaders' voices and indigenous best practices will be integrated from the outset to enrich the project implementation strategy. Detailed curricula co-development protocols, training-of-trainer arrangements, and local languages-based resource materials preparation plan will be finalized during the PFG phase in direct partnership with both countries implementing partners and community stakeholders.

Investing in local capabilities to leave an institutional legacy: The subproject 1 of the initiative is aimed at strengthening local capacities. Strengthening cooperatives as viable business centers, training community rangeland monitors and institutionalizing knowledge through Pastoral Field Schools and Regenerative Innovation Platforms (RIPs) allows the project to deliver the skills, institutions and knowledge systems required for sustained adaptation beyond the life of the project.

Building a robust understanding of climate risk and uncertainty: The project utilizes both indigenous wisdom and scientific information to develop an integrated view of climate risks. Village-based rangeland monitoring yields verified data, which is combined with GeoAI, satellite imagery and seasonal forecasting. Together, these components guarantee that early warnings and adaptation measures are scientifically rigorous and relevant to the context, bridging the divide between global climate models and local realities.

Flexible programming and learning: The project is designed to be managed adaptively. Knowledge exchange platforms and the once-a-year Pastoralist Innovation Forum create spaces for ongoing feedback and learning. These small grants facility seeks to be responsive to the needs of communities,

enabling them to adjust strategies in response to realities on the ground, and to remain flexible in the face of changing conditions or new information.

Ensuring transparency and accountability: Transparency is an important element in the governance of resources. PGRs have a transparent grant award process. Training in financial management and record-keeping is provided to cooperatives and water-user groups at the community level, to foster fair and accountable management of resources. Livestock value chain process and project status are available with the digital traceability and dashboard systems for every stakeholder.

Collaborative action and investment: The project supports the involvement of multiple stakeholders. It strengthens cross-border collaboration through IGAD-led platforms, promotes public-private partnerships for value chain development and fosters peer learning among pastoral communities. This regional approach enables coordinated investments and the leveraging of collective knowledge and resources, to achieve greater impact.

Innovative solutions within regional, locally guided context

Among the innovations promoted by the project are specific regional dryland adaptations based on indigenous know-how:

Regional Digital Public Goods: The digital platform (Component 4) provides regional public goods with integrated early warning, market information, rangeland monitoring and extension advisory services. By being interoperable between Ethiopia and Somalia it contributes to reducing duplication, cost and serves as a common resource for cross-border pastoralism and trade.

Decentralized Genetic Innovation: The development of CBBPs for small ruminants and camels is a pioneering approach that empowers pastoralists to actively participate in shaping genetic improvement efforts. The regional sire exchange promotes sheep and goat biodiversity, and the establishment of a cross-border genetic pool is instrumental for climate resilience.

Blended Finance for Local Entrepreneurs: The project links Index-Based Livestock Insurance (IBLI) and digital marketplaces to a small grants' mechanism, forming a strong package for climate risk management and market access. This methodology helps to de-risk investments for local micro, small, and medium enterprises (MSMEs), while establishing a climate-resilient local economy. Regenerative Innovation Platforms (RIPs) – They represent a novel governance model based on co-learning and co-management between herders, scientists, and local authorities that ensures adaptation actions are informed both by local knowledge and scientific research.

One-Stop Shop (OSS): It act as central hubs where pastoralists and agro-pastoralists can access climate resilient inputs (e.g. forage seeds, veterinary drugs etc.) and knowledge needed to adjust their practices to the changing climate conditions. This innovation, which is proven in Ethiopia, will be scaled to Somali.

Pastoral Field School (PFS): This innovative extension approach driven from the proven farmers field school approach is a community based hands-on learning approach that builds the capacity of pastoralists for group-based collective action such as community-based rangeland management, empowers women, promotes sustainable and locally relevant production practices.

Livestock Commercialization Clusters: This is geographically focused market driven approach for prioritized livestock commodities aiming to increase production, productivity, and market linkages.

The project is rooted in a Locally Led Adaptation principles, guiding the project to deliver appropriate, just and lasting climate resilience by recognizing pastoral and agro-pastoral communities in the Horn of Africa as agents of change and providing them with agency, resources and knowledge.

Innovative financing for climate adaptation technology solutions

Through a dedicated small grants mechanism, the project provides direct and flexible financial assistance to communities for cross-border, regional, or multi-country actions. To foster inclusive access to this grant facility, Participatory Grant Review Committees (PGRCs) will be formed at the community level to award a limited number of grants, for climate adaptation solutions placing funding decisions in the hands of those that know their communities best. The streamlined applications procedures, oral submissions, and milestone-based payouts are meant to be in tune with the rhythm and needs of local adaptation. This creates a sustainable financial pipeline for local innovation beyond short-term project funding.

While the Concept Note defines the core governance, eligibility, and decision-making arrangements, further procedural details will be refined in subsequent review rounds in line with AF Secretariat feedback.

Facilitating inclusive access to finance: To ensure fair and meaningful participation, the project will implement a robust outreach strategy that challenges barriers for local groups, including women, youth, pastoralist groups, and marginalized communities: Grassroots Outreach Efforts: The Program Coordination Unit (PCU) in partnership with Community-Based Organizations (CBOs) and cooperatives from Component 1, will conduct targeted outreach. This strategy will involve: Community Assemblies: Conducting local language meetings to explain the grant opportunity, highlighting feasible adaptation actions such as water harvesting and community nurseries. Dedicated Outreach to Women and Youth: Collaborating with women's associations and youth groups to hold separate sessions, ensuring their input is prioritized during discussions. This approach addresses barriers related to literacy, mobility, and cultural norms. Mobile Registration and Support: Employing youth enumerators and extension agents to visit remote pastoral areas for interest registration and initial guidance.

Process for awarding small grants: Transparency and participation in the process of awarding the grant and focus on the local agency. The timeline will be developed within the framework of work on the overall project, to provide two grant cycles of learning and adjustment. Modus: In each designated region a Participatory Grant Review Committee (PGRC) will be constituted comprising local government, traditional leaders and elected members from community cooperatives, which will be inclusive of women and youth. The constitution and mandate of the PGRC provides a practical demonstration of devolved authority under the LLA framework, as funding decisions are taken by locally embedded actors with contextual knowledge of climate risks, social dynamics, and customary governance systems. UNIDO and the PCU serve strictly as facilitators and technical secretariat support, without voting rights, ensuring that authority over prioritization and selection rests at the local and cross-border level. UNIDO and the PCU shall provide facilitation and technical secretariat support, non-voting. Evaluation criteria: Applications will be judged against transparent locally relevant criteria, with concise application forms in local languages and the option of transacting applications orally. These criteria will be among others: Climate Adaptation Relevance (40%) Relevance to climate related risks and vulnerability of the livestock and rangeland systems. Community Ownership and Participation (30%): Clearly demonstrates community participation in the design of the proposal, and that women, youth and other marginalized groups have identifiable benefits and roles in leadership. 20%) Feasibility: A believable workplan and budget, where simplicity is encouraged, and complex accounting is not necessary. Sustainability and Innovation (10%): Prospect that the activity sponsored by the grant will continue beyond the period of the grant or constitute a replicable, context-specific innovation. Schedule: A standard grant round will last approximately 4-5 months during which the following activities take place: promotion and support of the applications (2 months) Committee review and award (1-2 months), distribution and start of implementation.

Improving the quality of finance and governance: The small grants mechanism applies simplified fiduciary, reporting, and disbursement arrangements that are appropriate to grant size and community capacity, while maintaining accountability and transparency. To increase the availability and flexibility of finance, the project will: Apply the necessary modality: Provide grants in tranches based on demonstrated progress, balancing risk and trust. For certain minor activities, a single payment may apply. Streamline Reporting: Basic progress updates, photographs, community minutes, and financial

statements as proof of execution will be accepted, without requirement for comprehensive financial audits for small sums. Delegate Decision-Making: The PGRC's mandate facilitates funding decisions being made by those that know the local context, empowering local actors rather than international and national actors. Small Grants Monitoring, Evaluation, and Learning (MEL). The organization will put in place an efficient but simple MEL system as follows:

Results Management The existing digital monitoring system will be modified to monitor small grant outputs that will be linked to the overall project results framework. The MEL system is designed to reinforce locally led learning and adaptive management, enabling grantees to reflect on results, adjust activities in real time, and feed lessons into regional learning platforms without imposing extractive reporting burdens.

Community Monitoring: Grantees will also be trained in simple self-monitoring tools including the use of pictograms or basic checklists to keep track of their progress. Learning and Sharing: The knowledge sharing spaces will be used to promote learning and sharing of learnings.

B. Economic, social and environmental benefits

Economic Benefits

The project delivers substantial economic benefits by strengthening smart livestock systems that are designed, governed, and driven by pastoral and agro pastoral communities, reflecting the core intent of Outcome 3.1. Through CBBPs, producer units, fodder enterprises, and value addition hubs, households gain access to better genetics, improved veterinary services, and reliable feed supplies generated through restored rangelands. These interventions are expected to increase livestock productivity by 20 to 35 percent, leading to higher milk yields, improved weight gain, better survival rates, and stronger market competitiveness. Increased productivity directly enhances household incomes and strengthens asset bases, protecting families from the financial shocks of recurrent droughts.

Women and youth become central economic actors through their leadership in fodder production, milk processing, hide and skin value addition, and digital livestock services. These enterprises generate 12,000 to 15,000 jobs across the two countries, while stimulating micro and small businesses that anchor local economies. Market hubs equipped with chilling, grading, and storage systems reduce post-harvest losses, allowing producers to reach higher value markets. Under Outcome 4.1, the project strengthens digital advisory platforms, AI based alerts, and anticipatory action systems that are co-managed by community monitors, enabling households to make profitable and timely decisions on feeding, disease control, mobility, and marketing. Together, these community centered systems create more stable and diversified local economies, reduce the financial impacts of climate variability, and build long term economic resilience for the 220,000 participating households in the two countries.

Social benefit

Social benefits are anchored in the proposed intervention, ensuring that transformation is rooted in the knowledge, priorities, and leadership of the communities themselves. Under Outcome 1.1, the project strengthens cooperatives, rangeland governance committees, customary institutions, and producer organizations by providing them with the authority, tools, and decision-making structures needed to manage climate risks. These institutions guide planning processes, enforce community grazing regulations, coordinate water resource management, and oversee livestock and rangeland systems in ways that reflect local social norms and customary governance. This strengthens social cohesion and reduces disputes over natural resources, which are often exacerbated by droughts and resource scarcity.

Women and youth gain expanded roles in leadership, extension delivery, breeding groups, digital monitoring, and cooperative governance. Their increased participation not only shifts social norms but also broadens the pool of skills and knowledge available to manage climate related challenges. Community designed grazing calendars, bylaws, and Pastoral Field Schools promote a shared understanding of sustainable rangeland and livestock practices, enhancing trust and collaboration

among clans, ethnic groups, and border communities. Under Outcome 4.1, cross border dialogues and IGAD supported learning platforms strengthen collective decision making, harmonize grazing rules, and support peaceful mobility across Ethiopia and Somalia. These socially grounded, community driven processes create more stable, inclusive, and resilient communities that are better equipped to endure and adapt to climate shocks.

Environmental benefit

Environmental benefits of the project stem from community ownership of the restoration and sustainable management of rangelands, water resources, and grazing systems. Through Outcome 2.1, pastoral and agropastoral communities co-design and implement regenerative practices that restore 450,000 to 600,000 hectares of degraded drylands across both countries. These practices include rotational grazing, reseeding with native grasses, establishing enclosures, erosion control measures, constructing micro basins, and developing sand dams and water retention structures. These measures improve soil health, increase vegetation density, promote water infiltration, and reduce erosion, turning degraded landscapes into productive grazing systems. The project also strengthens biodiversity by revitalizing native species and creating healthier habitats for both livestock and wildlife.

Community rangeland monitors collect and interpret local data on vegetation, water points, and grazing conditions, supporting adaptive and timely management decisions. This ensures that environmental management remains grounded in local knowledge and responsive to early signs of degradation. Strengthening community governance and enforcement of grazing agreements reduces pressure on fragile ecosystems and prevents overgrazing. Under Outcome 3.1, improved herd efficiency, better feeding, and targeted breeding reduce the environmental footprint of livestock systems by lowering methane emissions intensity and improving carbon storage in soils and vegetation. Together, these measures create climate resilient landscapes that sustain pastoral livelihoods, support ecological integrity, and serve as natural buffers against droughts and climate related shocks.

C. Cost-effectiveness of the proposed project/programme

The proposed regional programme delivers high cost-effectiveness by leveraging economies of scale, reducing duplication of efforts, and creating shared systems that generate long- term cross-border benefits unattainable through isolated national projects. By aligning investments across Ethiopia and Somalia, the programme optimizes technical, financial, and institutional resources while addressing climate risks that transcend national boundaries.

Economies of scale and shared infrastructure: The establishment of joint digital platforms for geospatial monitoring, early warning, and market intelligence (under Components 2, 3, and 4) requires significant initial investment but yields large-scale efficiencies. Once established, these systems serve both countries simultaneously, expanding access to real-time climate and market data with minimal incremental cost. This shared infrastructure eliminates the need for each country to independently develop and maintain separate digital systems, substantially lowering per-user costs of adaptation services.

Harmonized regional planning and reduced transaction costs: The co-development of regional regenerative rangeland master plans and harmonized adaptation frameworks prevents policy fragmentation and duplication of effort. A single, integrated planning process, facilitated by IGAD, reduces transaction costs for national governments, donors, and implementing partners. It also ensures that interventions such as cross-border livestock mobility, disease surveillance, and resource management are coherent, mutually reinforcing, and financially efficient.

Shared technical expertise and capacity building: By pooling technical expertise and institutional resources, the programme achieves higher returns on capacity development investments. Regional training programs, digital learning hubs, and knowledge exchanges allow both countries to access innovations and best practices at lower marginal costs. Instead of funding multiple, parallel training and

research initiatives, the regional framework enables joint learning, resulting in faster technology transfer and improved institutional efficiency.

Cost-efficient technology deployment and procurement: The regional mechanism facilitates bulk procurement of equipment and services, such as water harvesting systems, regenerative inputs, and digital tools, achieving economies of scale and standardized quality control. This shared procurement and technical support network significantly lowers implementation and maintenance costs while improving system interoperability across borders.

Addressing transboundary risks through collective action: Climate-induced threats such as drought, rangeland degradation, and livestock disease spread are inherently regional. Addressing them through a unified system prevents inefficiencies caused by fragmented national responses. Through IGAD coordination, the programme enhances joint management of transboundary rangelands, water resources, and pastoral mobility corridors, reducing resource-based conflicts and the recurring costs of humanitarian response.

Leveraging public investment to attract private finance: The project's regional framework channels public funds into catalytic functions such as MSME support, financial innovation, and climate-risk insurance. These investments de-risk private sector participation, attracting additional capital for resilience-oriented enterprises. This blended financing approach multiplies the impact of each public dollar, advancing both adaptation outcomes and sustainable economic development.

Overall, the regional approach transforms isolated national adaptation efforts into a unified, cost-efficient system that generates shared value and long-term resilience across Ethiopia and Somalia. It maximizes returns on investment through shared infrastructure, coordinated governance, and collective knowledge systems, ensuring that every dollar spent delivers broader, more sustainable adaptation outcomes in Ethiopia and Somalia, which could be scaled across the Horn of Africa.

D. Consistency with national and sub-national and local SDGs

The project is designed to align with and support the national development and climate adaptation priorities of Ethiopia and Somalia, as well as the key regional frameworks. In Ethiopia, the programme fulfills the Climate Resilient Green Economy (CRGE) Strategy objectives by strengthening agricultural sector adaptation and promoting regenerative rangeland systems. It supports Ethiopia's Ten-Year Development Plan (2021 to 2030) by contributing to agricultural modernization, reducing livestock import dependence, and increasing export competitiveness. The project directly advances the National Livestock Master Plan through investments in climate resilient small ruminant and camel value chains, improved breeding services, traceability, and market entry systems. It contributes to Ethiopia's Nationally Determined Contribution (NDC 3.0) by promoting climate resilient agricultural practices, sustainable livestock management, and restored rangelands. It also aligns closely with the National Adaptation Plan (NAP) through interventions targeting sustainable land management, water harvesting, and resilience building in lowland arid and semi-arid areas.

In Somalia, the project supports the National Transformation Plan (NTP), which prioritizes inclusive economic growth, resilience to recurrent shocks, and strengthened natural resource governance. By improving pastoral and agro pastoral livelihoods and restoring rangelands, the project directly advances Somalia's long-term development and resilience objectives. It aligns with Somalia's third generation Nationally Determined Contribution (NDC 3.0) by scaling climate smart livestock production, rehabilitating degraded rangelands, and expanding drought tolerant forage systems. The project also contributes to Somalia's National Adaptation Plan (NAP) through its work on water harvesting, early warning systems, community based natural resource management, and drought risk reduction. In line with the Somalia Livestock Sector Development Strategy, the project strengthens small ruminant and camel systems, improves animal health services, enhances market access, and expands cross border livestock trade systems that are essential for national revenue generation. By supporting community centered governance structures, climate services, and anticipatory action tools, the programme also

reinforces Somalia's ambitions for decentralized, locally led adaptation as articulated in its national climate policies.

I. National Adaptation Plans (NAPs)

The project aligns closely with the National Adaptation Plans of both Ethiopia and Somalia. In Ethiopia, the initiative supports NAP priorities through climate resilient livestock development, sustainable land management, rangeland rehabilitation, and improved water harvesting in arid and semi-arid lowlands. By strengthening breeding programs, fodder systems, and adaptive management capacities of cooperatives, women, and youth, the project contributes directly to Ethiopia's goals for resilient rural livelihoods and sustainable natural resource use.

In Somalia, the project advances the NAP (2026–2030) by enhancing small ruminant and camel productivity, restoring degraded grazing areas, strengthening water access, and supporting climate resilient value chains. The intervention promotes locally led governance structures and builds adaptive capacity in pastoral and agro pastoral areas, reinforcing NAP priorities for resilient livelihoods and inclusive natural resource management in drought prone drylands.

II. Nationally Determined Contributions (NDC 3.0)

The project is strongly aligned with the NDC 3.0 commitments of both countries. In Ethiopia, it contributes to climate smart agricultural transformation, reduced land degradation, improved livestock efficiency, and strengthened climate information services. Restored rangelands, improved genetics, and sustainable forage systems all support Ethiopia's adaptation and mitigation targets under the NDC. In Somalia, the project supports NDC goals by strengthening climate smart livestock production, adaptive breeding, sustainable rangeland management, and enhanced value addition. Through digital advisories, anticipatory action tools, and risk management systems, the project reduces climate vulnerability and advances national priorities for resilient, low emission development in pastoral regions.

III. National Development Frameworks (Ethiopia's Ten-Year Perspective Plan and Somalia's NTP)

The initiative is aligned with Ethiopia's Ten-Year Perspective Plan (2021–2030), which emphasizes modernized agriculture, export growth, reduced import dependence, and climate resilient rural transformation. By improving livestock productivity, market readiness, and feed systems, the project directly supports Ethiopia's structural transformation objectives in lowland regions.

In Somalia, the project advances the National Transformation Plan (NTP 2025–2029) under Pillar 4 on Environment and Climate Resilience. It improves climate smart livestock systems, strengthens rural livelihoods, modernizes production systems, and enhances natural resource management. The intervention reinforces ongoing national efforts to integrate climate action into local development planning and promote inclusive economic transformation.

IV. Livestock and Rural Development Policies (Ethiopia's ARD Policy and Somalia's LSDS)

The project is fully aligned with Ethiopia's Agriculture and Rural Development Policy, which prioritizes sustainable land management, improved livestock production, community based natural resource governance, and rural enterprise development. By promoting improved breeding, rangeland regeneration, water management, and inclusive value chains, the project strengthens Ethiopia's goals for climate resilient and productive rural systems.

In Somalia, the project supports the Livestock Sector Development Strategy (LSDS 2020–2030) by modernizing small ruminant and camel value chains, expanding fodder and feed systems, improving animal health services, and enhancing value addition and market access. The initiative advances national ambitions to shift from low value live animal sales to a diversified, high value livestock industry. It also aligns with the forthcoming UN Sustainable Development Cooperation Framework for Somalia, especially outcomes on productive sector transformation and locally led climate resilience.

At the regional level, the programme serves as a practical implementation tool for Intergovernmental Authority on Development (IGAD) strategies, particularly the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI). The IDDRSI framework depends on four main components, which include transboundary rangeland management and regional knowledge sharing and harmonized early warning systems, and cross-border trade facilitation. The program supports Ethiopian Somali collaboration, which leads to better regional integration and unified climate risk management that supports both the African Union Agenda 2063 and Paris Agreement targets. The program operates under a multi-scalar framework that links national and regional sustainable development targets with climate adaptation initiatives to maintain consistency in existing development frameworks.

E. Relevant national technical standards and compliance with AF Environmental and Social Policy

The AgrInnova project is designed to meet all applicable Ethiopian and Somali technical, environmental, and social standards while achieving full compliance with the UNIDO's and AF's environmental and social policies. Additional safeguard studies will be conducted during the Project Formulation Phase. All infrastructure supported through AgrInnova, including agricultural transformation centers, fodder storage units, small water harvesting structures, and climate-smart cold storage facilities, will conform to national building codes and engineering specifications as required by the construction works regulatory policies and guidelines of both Ethiopia and Somalia. Environmental compliance will be ensured through the existing national environmental impact assessment proclamation and in coordination with the respective national regulatory institutions. Project planning will integrate all required screening, permitting, and supervision protocols.

In accordance with AF requirements, the key safeguard instruments, including Environmental and Social Management Plan (ESMP), a Stakeholder Engagement Plan (SEP), a Gender Action Plan (GAP), and a Grievance Redress Mechanism (GRM), will be developed for both Ethiopia and Somalia..

During the full proposal phase, a comprehensive Environmental and Social Impact Assessment in line with the Adaptation Fund's Environmental and Social Policy will be conducted. This will identify site specific risks and define proportionate mitigation measures related to water use, rangeland conditions, biodiversity, climate impacts, and gender and social inclusion in both countries. Special attention will be given to ensuring that women, youth, pastoralist groups, and marginalized producers can participate meaningfully and benefit equitably from breeding, fodder, processing, and market interventions. Because Agrinnova strengthens existing communal systems and does not alter land access or relocate users, the project is free of involuntary resettlement risks. A Stakeholder Engagement Plan and a Gender Action Plan will be prepared to formalize inclusive participation, clarify responsibilities, and support transparent and equitable benefit sharing.

The project will also establish a clear and accessible Grievance Redress Mechanism at community and woreda levels. This mechanism will enable producers, cooperatives, and local institutions to raise concerns, seek timely responses, and ensure ongoing accountability throughout implementation. Safeguards, gender, and technical specialists will work together to oversee compliance and provide training to local partners, ensuring that engineering quality, environmental protection, and social equity advance in tandem. Through this integrated and locally grounded approach, Agrinnova ensures that climate smart livestock and rangeland investments are technically sound, environmentally responsible, socially just, and fully aligned with Ethiopia's national policies and Adaptation Fund standards.

F. Duplication of the project/program with other funding sources

The AgrInnova project is specifically structured to complement existing Adaptation Fund and donor-supported initiatives in Ethiopia and Somalia, while avoiding duplication. It builds on national priorities (NAP, NDC), applies Ethiopian technical standards and East African pastoral codes, and follows WOA and FAO guidance for animal health, feed systems, and value-chain safety. AgrInnova fills major gaps

that remain underfinanced in both countries, including climate-resilient breeding systems, community-led rangeland governance, small ruminant and camel productivity programs, regenerative dryland restoration, agrivoltaic-powered livestock processing centers, and market-linked MSME diversification.

Duplication is avoided through coordinated geographic planning with the World Bank, IFAD, AfDB, FAO, GIZ, USAID, and IGAD. Shared site maps, asset registries, and rangeland-use data will ensure that AgrInnova invests only in underserved pastoral areas with limited prior support. By integrating breeding, digital advisory systems, ecosystem management, and value-chain infrastructure, the program creates a unified climate adaptation pathway instead of fragmented interventions.

UNIDO will also follow a shared implementation approach across its regional and Somalia national proposals, while maintaining clearly defined and separate scopes. Clear operational boundaries, eligibility rules, and institutional roles ensure that no activity, beneficiary group, or investment is financed under both projects. Coordination mechanisms focus on information sharing and standards alignment, while financing streams remain strictly separated by geographic scope and function. A key added value of AgrInnova is its cross-border mandate, addressing transboundary rangeland systems, shared grazing corridors, water points, and livestock mobility routes between Ethiopia and Somalia. While most national projects remain within one country, AgrInnova strengthens harmonized animal health protocols, early warning systems, market standards, and rangeland governance practices across borders. It creates joint learning platforms linked to IGAD's IDDRSI, enabling Ethiopia and Somalia to share experience, synchronize policies, and co-manage climate risks that no single country can address alone.

In practical terms, AgrInnova complements adaptation efforts by expanding fodder and feed innovations, piloting agrivoltaic-powered processing hubs, strengthening digital traceability, and improving cross-border livestock trade. It leverages Ethiopia's advanced CBBP model and Somalia's digital service expansion to create a regional knowledge hub that supports planning, MRV, and climate-risk analytics for both countries. Through women- and youth-led cooperatives, the project drives inclusive enterprise development and long-term resilience in areas historically overlooked by mainstream agriculture and resilience programs.

Table 3: List of relevant programs in Ethiopia and Somalia and complementarity with AgrInnova

No.	Project / Program	Implementing / Executing Entity	Geography / Focus	Complementarity – Gaps AgrInnova Fills	Synergies – Multiplier Effects
1	Lowlands Livelihood Resilience Project (LLRP)	Government of Ethiopia, World Bank	Afar, Somali, Oromia, SNNP lowlands	LLRP focuses on broad resilience, community development, and multi-species livestock systems. Small ruminants and climate-smart breeding remain under-supported.	AgrInnova adds species-specific programs for sheep, goats, and camels, introduces GeoAI monitoring, and harmonizes cross-border mobility rules with Somalia.
2	PRIME (USAID, legacy)	Mercy Corps and partners	Ethiopia drylands (Borana, Somali)	PRIME strengthened markets but did not integrate digital traceability or climate-smart breeding.	AgrInnova advances PRIME's legacy through digital EWS, livestock traceability, regenerative grazing, and climate finance access.
3	Livestock and Fisheries Sector Development Project (LFSDP)	MoA, World Bank	Highland and mixed systems	Productive livestock support exists but limited focus on drought-tolerant species and dryland rangelands.	AgrInnova shifts focus to small ruminants and camel systems, integrates climate adaptation, and co-develops water-efficient feed systems.
4	Resilient Landscapes and Livelihoods Project (RLLP II)	MoA, World Bank	Highland watersheds	Strong watershed restoration but minimal pastoral rangeland support.	AgrInnova complements by scaling regenerative rangeland restoration in Ethiopia and Somalia's lowlands.
5	ACREI (Adaptation Fund – IGAD)	IGAD, ICPALD, FAO	Ethiopia-Kenya-Uganda (crop/CIS focus)	Climate information services exist but not adapted for livestock decision-making.	AgrInnova integrates CIS with livestock-specific alerts, mobility advisories, and rangeland condition analytics.
6	IFAD Climate-Resilient Agriculture (PACT, etc.)	IFAD, MoA	Ethiopia highlands and midlands	Crop-heavy; limited pastoral targeting.	AgrInnova targets pastoralists and dryland livestock systems; establishes digital knowledge hubs do not present in IFAD programs.
7	DRIVE (WB)	MoA, ILRI, private sector	Ethiopia pastoral regions	Focus on insurance and financial inclusion; limited breeding and rangeland work.	AgrInnova integrates insurance triggers with rangeland restoration, early warning systems, and adaptive breeding.
8	DRSLP (Afar, Somali)	AfDB, Irish Aid	Afar and Somali	NRM support but limited value-chain depth.	AgrInnova strengthens processing, traceability, market hubs, and regenerative grazing.
9	UNIDO Livestock Value Chain Upgrading	UNIDO, China	Ethiopia national	Focus on quality infrastructure, not climate adaptation.	AgrInnova strengthens climate-resilient feed, water, and genetic systems; links to UNIDO quality labs for certification.
10	Somalia Hal-abuur (IFAD)	IFAD, SADAR	Southwest, Galmudug, Puntland	Soil and ecosystem restoration for crops and agro-pastoralists; limited livestock focus.	AgrInnova extends adaptation to pastoral drylands; integrates restored ecosystems into productive livestock systems.
11	EARNSS (UNEP)	UNEP, SADAR	Shabelle Basin	Riverine NbS, wetland restoration.	AgrInnova complements by supporting surrounding drylands, linking flood resilience and drought resilience across basins.

12	Biyooley (World Bank)	FGS/FMS	Somalia water schemes	Climate-resilient water systems but limited integration with livestock value chains.	AgrInnova adds livestock water governance, digital monitoring, and climate-smart fodder systems.
13	AFCIA: Adaptation Fund Climate Innovation Accelerator	UNIDO	Multi-country (Africa-wide); value chains, agro-processing, climate-smart food systems	AFCIA focuses on climate-smart agro-processing, value-chain upgrading, and industrial food systems, but does not address transboundary rangeland governance, pastoral livestock mobility, or community-led dryland restoration.	AgrInnova provides upstream climate-resilient livestock production, rangeland restoration, and cross-border governance that strengthen AFCIA-supported value chains. Shared digital systems, standards, and UNIDO implementation platforms enable learning, scale, and policy coherence without duplicating investments.
14	SLLAS – Scaling Locally Led Adaptation in the Agriculture Sector (LLA Aggregator)	UNIDO	Global / multi-country; locally led adaptation in agriculture	SLAAS functions as a global LLA aggregation mechanism, channeling small grants to local actors through non-accredited entities, but does not target regional public goods, cross-border pastoral systems, or transboundary rangeland governance.	AgrInnova complements SLLAS by operationalizing communities' engagement at a regional and cross-border scale, demonstrating participatory decision-making, small-grants governance models, and learning systems for pastoral drylands. Lessons, tools, and institutional models generated by AgrInnova can inform and be scaled through SLAAS-supported national and local LLA investments, while avoiding duplication of grant financing.
15	Somalia livestock adaptation project	UNIDO	Somalia (national)	The Somalia national project focuses on country-specific service delivery and institutional embedding, including national livestock health services, vaccination campaigns, water point rehabilitation, fodder banks, climate advisories, index-based livestock insurance, and integration into Somalia's NAP, NDC, and public finance systems. These national-scale investments are not financed under AgrInnova.	AgrInnova complements the Somalia national project by providing regional public goods, including cross-border governance mechanisms, harmonized livestock and rangeland standards, interoperable digital and early warning systems, and cross-border CBBPs, enabling Somalia's national investments to operate more effectively within transboundary rangeland and livestock mobility systems.

G. Learning, knowledge management, and dissemination of lessons learned

The project treats learning as a central pillar, recognizing it as one of the key principles that strengthens community ownership, accountability, and long-term resilience. Learning is embedded from the beginning into planning, budgeting, and facilitation processes so that each breeding initiative, fodder enterprise, water structure, rangeland intervention, and value addition service becomes an opportunity to generate practical knowledge. Women and youth play a leading role by using simple participatory tools such as rangeland observation journals, water point trackers, and household reflection sessions to document seasonal changes, service quality, and livelihood outcomes. Their insights form the foundation for adaptive planning and strengthen the voice and agency of community institutions.

A digital learning and monitoring system complements community-based evidence. It captures geotagged investments, vegetation trends, livestock health data, climate advisories, and service utilization patterns across Ethiopia and Somalia. These data streams feed into a shared learning interface that helps cooperatives, extension workers, and district governments revise grazing calendars, improve water management, update business plans, and coordinate livestock mobility. Youth monitors and cooperative leaders receive training to interpret the information and use it to enhance governance and enterprise performance.

AgrInnova applies an adaptive learning approach to all innovations introduced by the project. Regenerative grazing models, digital traceability systems, agrivoltaic processing hubs, and youth led fodder businesses are treated as evolving practices guided by clear learning questions, community validation processes, and seasonal reviews. This allows interventions to be refined continuously and ensures that benefits remain equitable for women herders, cooperative leaders, and young livestock entrepreneurs.

The project translates learning into accessible products for different audiences. Communities receive illustrated guides, pastoral field notes, short videos, and audio lessons in local languages. Policymakers, technical agencies, and investors receive concise adaptation briefs, governance guidance, and regular updates that connect field insights to national planning processes. Cross border learning notes highlight how coordinated grazing rules, aligned animal health systems, and shared climate services enhance resilience across the Ethiopia and Somalia drylands. To enhance and ensure effective implementation and scalability of the adaptation solutions, the media of learning and communications will be pursued in local languages.

Knowledge is shared through multiple channels. Community learning groups meet regularly to review results and adjust workplans. District level review days enable local authorities to integrate evidence into extension strategies and resource management. IGAD supported exchanges facilitate regional learning and cooperation. Additional webinars, field demonstrations, and learning events expand reach to national and international audiences.

Finally, learning is systematically fed back into project governance through short learning logs, quarterly digests, and decision notes that track how evidence influences implementation choices. Ministries in both countries use these insights to refine NAP and NDC actions, strengthen rangeland rules, and integrate proven approaches into annual plans. Data privacy and community consent protocols guide information management, ensuring trust and accountability.

Through this approach, AgrInnova ensures that learning remains practical, inclusive, and locally driven, helping Ethiopia and Somalia build climate resilient livestock and rangeland systems grounded in community experience and adaptive knowledge.

H. Consultative process and stakeholders' roles

The planned regional project was conceived through a series of stakeholder consultations led by UNIDO, in partnership with the Agricultural Transformation Institute (ATI), the Ministry of Agriculture (MoA), and the National Designated Authorities (NDAs) of Ethiopia and Somalia. Initial discussions were held

virtually on 11 July 2025 with Somali government representatives, who identified national priorities around rangeland restoration, livestock productivity, value addition, and institutional capacity development. A follow-up regional meeting on 23 July 2025 brought together counterparts from Ethiopia's MoA, ATI, and MoPD, alongside UNIDO technical experts, to align project objectives with both countries' NAPs, NDCs, LT-LEDS, and national development strategies. These joint consultations established a shared understanding of the project's strategic relevance, regional scope, and governance arrangements, marking the formal initiation of the AgrInnova concept for submission to the Adaptation Fund.

The project was designed through a series of participatory local consultations held between 29 October and 9 November 2025 across three regional states of Ethiopia, i.e., Somali (Degehabur District), Southern Ethiopia (South Omo Zone, Bena Tsemay District), and Oromia (Borana Zone, Yabello District), and four regions in Somalia. In Ethiopia, these consultations, jointly facilitated by UNIDO and ATI in collaboration with local authorities, engaged 206 participants (101 men and 105 women), including pastoralists and agro-pastoralists, women and youth groups, cooperative members, extension agents, and traditional and clan leaders. Through inclusive dialogue and community-driven analysis, participants identified priority climate risks and adaptation needs specific to their contexts, including recurrent droughts, rangeland degradation, feed and water scarcity, and weak institutional systems. They also proposed locally appropriate solutions such as community-led rangeland restoration, forage development, climate-smart livestock systems, livelihood diversification, and women- and youth-led enterprises. The findings have directly shaped the programme design, ensuring that AgrInnova interventions are context responsive.

In Somalia, the project design was initiated through a consultative process led by UNIDO in partnership with the Ministry of Environment and Climate Change (MoECC), the National Climate Fund - NCF (AF-NDA), housed within the Ministry of Finance, the Ministry of Livestock, Forestry and Rangeland (MoLFR) and the Ministry of Agriculture and Irrigation (MoAI), and key regional stakeholders. The national consultation held on 11 July 2025 identified Somalia's priority adaptation needs around rangeland rehabilitation, livestock productivity, institutional capacity development, and value addition for livestock products. These priorities guided the subsequent series of community and institutional consultations conducted between 30 October and 7 November 2025 across Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland). The consultations engaged pastoralists, agro-pastoralists, cooperatives, women and youth groups, government representatives, and private sector actors, capturing local experiences of drought, flood, and rangeland degradation. Participants emphasized the need for water-harvesting infrastructure, cooperative strengthening, gender- and youth-responsive adaptation platforms, and digital early-warning and market systems. The insights gathered through these participatory processes have been fully integrated into Somalia's component of the AgrInnova Programme, ensuring that project interventions are community-driven, locally prioritized, and aligned with Somalia's NAP, NDC, and national climate resilience strategies.

Following the completion of the field consultations, a stakeholders' validation workshop was held on 11 November 2025 in Addis Ababa, Ethiopia, bringing several participants, including senior government officials from Ethiopia and Somalia, UNIDO technical staff, research partners (ICARDA and others), private sector actors, financial and insurance institutions, and climate and disaster risk management experts. The main objective was to validate the draft project concept note and ensure that its design reflects the priorities, lessons, and realities of both countries while enhancing cross-border collaboration on climate-resilient pastoral systems. During the PFG further consultations and regional stakeholders' validation workshops will be held, bringing together Ethiopian and Somali counterparts, the NDAs, and relevant institutions, to validate proposed cross-border and regional coordination mechanism and to ensure alignment of the project intervention with the needs of the target locations as guided by national priorities.

Participants reviewed the project's design and components, the outcomes of community consultations in both countries, and technical presentations on the CBBP, and the Multi-Hazard Early Warning System

(MHEWS) as tools contributing to locally led adaptation process. Key recommendations included strengthening cross-border coordination, enhancing financial and insurance linkages, promoting locally led and inclusive adaptation, and ensuring policy coherence, conflict sensitivity, and integration of indigenous knowledge. The workshop validated the quality and relevance of the concept note, and its recommendations have been incorporated into the revised CN, particularly under components on resilient livestock systems, financial inclusion and risk management, and climate information and early warning systems.

I. Justification for funding

In accordance with the Adaptation Fund's mandate to finance the full cost of adaptation, the delivery of all project outputs and outcomes under this regional project is fully covered by the requested Adaptation Fund resources and is not contingent upon external co-financing or additional funding sources. The project is therefore designed to achieve its stated objectives independently, without reliance on parallel or future financing.

The requested US 30 million is justified by the scale of climate risks affecting pastoral and agro pastoral communities across the Ethiopia–Somalia drylands and by the type of climate-specific investments required to strengthen their resilience. Rising temperatures, prolonged droughts, and increasingly degraded rangelands are eroding livestock assets, reducing water availability, weakening markets, and limiting the ability of institutions and communities to respond. Without adaptation support, households face worsening livestock mortality, reduced pasture regeneration, escalating water shortages, and growing conflict around grazing areas. Women and youth, who depend heavily on small ruminants and informal livestock trade, remain particularly vulnerable due to limited access to services, information, and financial opportunities. National and subnational systems, though committed to NAP and NDC goals, lack the operational tools and resources to implement these commitments in climate-sensitive drylands.

The AF grant covers the climate-driven, incremental costs that existing development or humanitarian programs cannot address. AgrInnova's first component focuses on strengthening the institutional and technical capacity needed for climate-responsive livestock and rangeland management. This requires developing climate-informed planning tools, equipping cooperatives, supporting community platforms, training women and youth leaders, and ensuring institutions can interpret and use climate information. These functions are foundational for adaptation but remain unfunded in both countries.

The second component centers on rangeland and water systems, where climate change has had the most visible impact. Rehabilitation of degraded areas, reseeding with indigenous species, construction of water harvesting structures, and strengthening of local governance groups are all adaptation measures that directly counter drought and land degradation. These costs would not arise in a stable climate and therefore fall within the full-cost-of-adaptation justification.

AgrInnova's third component responds to the climate vulnerability of livestock systems by investing in drought-tolerant breeding programs, improved animal health services, climate-resilient fodder production, and modern value-addition facilities powered by solar energy. The project supports digital traceability and advisory tools that help producers anticipate climate threats and reduce losses. These measures allow households to protect their primary assets and diversify their income, particularly benefiting women and youth who rely on small ruminants and short-cycle enterprises.

The fourth component requires resources to build a regional system for climate services, early warning, and cross-border coordination. This includes digital platforms, AI-assisted alerts, knowledge exchanges, cross-border monitoring groups, and youth-led rangeland information systems. These systems enable Ethiopia and Somalia to anticipate droughts, coordinate mobility, and prevent large-scale losses. Such regional mechanisms cannot be financed through single-country programs or local budgets.

AF resources are essential because Ethiopia and Somalia face significant fiscal constraints, with domestic budgets directed toward basic services and humanitarian needs rather than long-term climate adaptation. Most ongoing initiatives focus on crop agriculture, emergency relief, or general livestock

development, none of which provide the climate-specific inputs needed to restore degraded rangelands, secure water, strengthen drought-resistant breeding, or build digital climate services. The AF grant therefore fills a structural adaptation gap.

The level of financing requested is therefore directly proportional to the scale, urgency, and systemic nature of the climate risks facing pastoralist and agropastoral communities across Somalia and Ethiopia's shared dryland and rangeland systems, and reflects the minimum resources required to deliver meaningful and lasting resilience outcomes at regional scale. Without this investment, vulnerable households, community institutions, and cross-border pastoral economies will remain highly exposed to escalating climate shocks, recurrent droughts, and resource degradation. By contrast, the proposed programme enables a transformative shift toward climate-resilient, locally led, and regionally coordinated livestock and rangeland systems, strengthening adaptive capacity, safeguarding livelihoods, and promoting long-term stability across the Ethiopia–Somalia borderlands.

J. Sustainability of the project/programme outcomes

Long term climate resilience in the Ethiopia and Somalia drylands depends on the capacity of local communities, cooperatives, and institutions to continue managing rangelands, livestock systems, and climate risks long after external support concludes. The project strengthens this foundation by embedding adaptation practices within local governance structures, restoring ecological systems that sustain pastoral livelihoods, and expanding economic opportunities that can finance future resilience. Sustainability is therefore approached through five interconnected dimensions, i.e., financial, social, economic, institutional, and ecological, each of which reinforces one or more of the project outcomes and ensures that the benefits of adaptation endure well beyond the life of the grant.

Financial Sustainability

Financial sustainability is strengthened by ensuring that communities and cooperatives can generate and retain resources to maintain the services and assets introduced by the project. Under Outcome 3, improved breeding programs, fodder production, value addition, and aggregation hubs create continuous income for households and cooperatives. These earnings allow producer groups to finance routine costs such as feed, veterinary inputs, operation of small processing units, and maintenance of equipment. They also support reinvestment into expansion of enterprises.

Outcome 4 expands the financial base by connecting producers to digital tools that reduce transaction costs, provide timely price information, improve quality verification, and increase returns on livestock products. Over time, digital traceability and advisory services enhance market reliability, enabling pastoralists to plan their sales and manage risks more effectively. Savings groups, microfinance linkages, and insurance schemes are established to help households protect assets during droughts, restart production aftershocks, and accumulate capital for future investment. By strengthening these financial systems, AgriInnova reduces dependency on external funding and builds a long-term foundation for community self-reliance.

Social Sustainability

Social sustainability is achieved by strengthening community ownership, inclusive governance, and social cohesion around rangeland and livestock management. Outcome 1 supports the creation and strengthening of cooperatives, community rangeland committees, women's groups, and youth leadership structures. These bodies guide local planning, resolve disputes, and manage shared resources, ensuring that responsibilities and benefits are managed collectively. When communities feel ownership of processes and assets, they are more willing to maintain them after external financing ends.

Outcome 2 deepens social sustainability through the development of community rules, grazing calendars, water-use agreements, and rangeland monitoring systems. These collectively agreed arrangements reduce conflict and promote fair access to grazing and water. Women and youth are placed in visible leadership positions in rangeland governance and small ruminant breeding groups, ensuring that adaptation benefits reach those who bear disproportionate climate impacts. Because the

project builds traditional knowledge systems and cultural norms while strengthening them with scientific tools, social acceptance and continuity are strengthened. These combined efforts help communities carry forward adaptive practices independently and cohesively.

Economic Sustainability

Economic sustainability is achieved by strengthening the climate resilience of livestock-based livelihoods and creating new income opportunities that continue beyond the project period. Outcome 3 plays a central role by improving productivity, herd health, market access, and value addition for small ruminants and camels. These measures increase earnings, reduce losses during droughts, and create reliable cash flows that allow households to save and reinvest. Climate resilient fodder enterprises and improved feeding systems ensure year-round access to feed, reducing the financial strain caused by purchasing expensive fodder during drought seasons.

Outcome 2 enhances economic sustainability by restoring rangelands and improving water security, which are the ecological foundations of livestock production. By stabilizing forage availability and improving land condition, the project lowers the cost of maintaining herds and reduces the reliance on emergency coping strategies. When ecosystems become more productive, households spend less on feed, water trucking, and animal replacement. Over time, the improved natural resource base and stronger value chains create a more stable and predictable economic environment, allowing households to build resilience and protect their livelihoods from climate variability.

Institutional Sustainability

Institutional sustainability is strengthened by equipping local and regional institutions with the skills, tools, and systems needed to continue adaptation efforts independently. Under Outcome 1, the project supports the development of rangeland and livestock master plans, operational guidelines, capacity building programs, knowledge platforms, and extension tools that can be absorbed into the normal work of cooperatives and government offices. Training for extension agents, animal health workers, rangeland monitors, and cooperative managers ensures that local human capital remains strong after the project ends.

Outcome 4 expands institutional sustainability by anchoring cross-border coordination mechanisms, integrated digital platforms, climate advisory systems, and early warning tools in both government and IGAD structures. These systems strengthen the ability of Ethiopia and Somalia to share information, coordinate mobility, manage transboundary grazing corridors, and harmonize animal health or market standards. By aligning these systems with national NAPs, NDCs, and livestock development strategies, the project ensures that government institutions can finance and expand proven practices in future planning and budgeting cycles.

Ecological Sustainability

Ecological sustainability is achieved by restoring and protecting the ecosystems that pastoral livelihoods depend on. Outcome 2 supports large scale rangeland rehabilitation, reseeded with native species, erosion control, water harvesting, and community management systems that ensure continued stewardship of natural resources. These interventions reverse degradation, improve vegetation cover, and strengthen soil health, creating landscapes that can withstand prolonged droughts.

Outcome 3 contributes by promoting livestock systems that are lighter on the environment. Drought tolerant breeds, improved feeding practices, community-controlled breeding, and reduced reliance on overgrazed communal lands help to lower pressure on fragile ecosystems. As rangeland conditions improve and herd management becomes more efficient, biodiversity recovers, forage availability becomes more reliable, and the risk of resource-based conflict decreases. These ecological gains ensure that the benefits of the project continue long after implementation, supporting a healthy, productive landscape that can adapt to future climate stress.

Across all dimensions, AgrInnova strengthens the environmental, economic, social, institutional, and financial foundations of climate resilience. By directly linking sustainability strategies to the project's outcomes, the program ensures that communities gain the capacity, tools, knowledge, incentives, and ecological conditions they need to sustain adaptation practices long into the future

K. Environmental and social impacts and risks

The project has been classified as Category B because its anticipated environmental and social risks are moderate, localized, and can be effectively managed through participatory planning and community-based governance systems. Consistent with the Adaptation Fund's environmental and social policy, potential impacts will be identified, monitored, and addressed together with the communities who manage the land, water, and livestock resources. This means that the same structures leading adaptation, i.e., rangeland committees, cooperatives, women's groups, youth monitors, and customary institutions, will also guide risk screening, mitigation, and ongoing oversight. Through this locally rooted process, the project ensures that activities remain culturally appropriate, conflict sensitive, environmentally sound, and compliant with the Adaptation Fund environmental and social policy as well as national regulations in Ethiopia and Somalia. Site specific assessments and ESMPs will be prepared during the PPG and inception phases to refine measures and maintain strong alignment between the proposed interventions and safeguard requirements throughout implementation.

Table 4: Environmental and social risks identified and mitigation measures

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		Risk: Possible non-compliance with national, regional, or international veterinary standards and rules on use of genetic resources (WOAH/FAO) due to fragmented regulations or contractor error. Likelihood: Low Mitigation: The project will ensure full compliance with all environmental, land, veterinary regulations and Nagoya Protocol. A legal review will produce a compliance matrix and permit register, with enforcement through go/no-go decision gates. Continuous monitoring will use an integrated checklist, and detailed compliance plans will be finalized during the PFG and inception phases.
Access and Equity		Risk: Unequal access to project benefits (digital tools, improved genetics, water) for poorer, remote, or marginalized communities. Likelihood: Low Mitigation: Ensure inclusive planning and participatory governance through indigenous associations, cooperatives, targeted outreach, pro-poor access, local-language delivery, grievance redress mechanisms, and digital monitoring. Detailed action plans will be developed during the PFG and inception phases.
Marginalized and Vulnerable Groups		Risk: Women, youth, and vulnerable pastoralists, including marginalized groups, may be excluded from project activities and benefits. Impact: Medium but could undermine equity and community ownership. Mitigation: Ensure inclusive participation through participatory planning, transparent by-laws, and grievance mechanisms. Target at least one-third of Community-Based Breeding Programs to be women-led, adopt gender-transformative approaches, and engage youth via digital rangeland monitoring, entrepreneurship, and mentorship programs.
Human Rights		Risk: Indirect social impacts from exclusion or perceived inequity, leading to social tension. Impact Level: Low Mitigation/Management: Ensure Free, Prior, and Informed Consultation (FPIC) and inclusive participation of all groups. Apply UNGPs, ILO standards,

		and AF-ESP to prevent discrimination, SEA/SH, and labor risks. Measures include gender and inclusion targets, SEA/SH Code of Conduct and survivor-centered GRM, OHS and child/forced labor screening, data protection, equal pay, and regular social audits with corrective actions.
Gender Equality and Women's Empowerment		Risk: Cultural norms may limit women's participation in leadership, decision-making, and market access. Impact: Medium, it could reduce empowerment and socio-economic benefits. Mitigation: Implement a GAP with targeted women's cooperatives, gender-responsive training, and access to finance (Output 3.1.3). Track sex-disaggregated indicators and apply corrective actions, such as governance adjustments and enhanced outreach, if targets are unmet for two quarters.
Core Labor Rights		Risk: Weak enforcement of national labor standards and ILO conventions by contractors and SMEs during construction or processing. Impact: Low, possible breaches of decent work standards. Mitigation: All contracts will mandate compliance with national labor laws, ILO conventions, and UNIDO standards, including fair wages, safe conditions, and zero tolerance for child or forced labor, discrimination, and SEA/SH. Compliance will be ensured through OHS training, PPE provision, Codes of Conduct, and regular labor audits with third-party oversight. Corrective actions, including remediation or contract suspension, will be applied as needed. Detailed procedures will be finalized during the PPG phase.
Indigenous Peoples		Risk: Limited integration of customary governance and indigenous knowledge in project design and implementation. Impact: Low, it may weaken project legitimacy and trigger local tensions. Mitigation: Integrate customary institutions into grazing and water management (Component 2) and embed Indigenous Knowledge in breeding program design and implementation, rangeland restoration, and innovation design through participatory planning and continuous community engagement.
Involuntary Resettlement		Risk: Resource-use restrictions causing perceived or actual loss of access or livelihoods. Impact: Low, it may have an implication for local conflict or economic displacement. Mitigation: Ensure all restoration and water management agreements are community-driven, endorsed by cooperatives and customary leaders, and based on transparent, equitable access rules.
Protection of Natural Habitats		Risk: Restoration or water interventions may increase grazing pressure or disturb sensitive habitats (wetlands, riparian zones, wadis). Impact: Low, Localized degradation, erosion, or habitat fragmentation. Mitigation: Apply the mitigation hierarchy (avoid–minimize–restore–offset); use rangeland masterplans and participatory mapping to avoid critical habitats; enforce buffer zones; conduct ESIA/ESMP with biodiversity, erosion, and water-use controls; ensure contractor compliance, supervision, and community monitoring; and use GeoAI-supported assessments to guide adaptive management.
Conservation of Biological Diversity		Risk: Biodiversity and livestock genetic integrity Impact: Medium–High: Introduction of non-native forage species and inbreeding within local herds could undermine ecosystem resilience, livestock productivity, and long-term climate adaptability. Mitigation: Use indigenous, site-adapted forage species; maintain livestock genetic diversity through community-based breeding and sire rotation. For cross-border germplasm movement, implement Material Transfer Agreements and benefit-sharing arrangements aligned with the Convention on Biological Diversity and Nagoya Protocol. Strengthen community capacity and promote livelihood diversification to reinforce resilience..
Climate Change		Likelihood: Low risk

		Mitigation Measures: While most actions are adaptive (solar displaces diesel; small ruminant innovations reduce GHG emissions), some interventions (concrete water harvesting structures, processing centers, increased trekking distances during droughts) may carry maladaptation implications. A maladaptation screening will be integrated into the ESIA and conducted during the Project Formulation and inception phases to assess and mitigate potential second-order risks.
Pollution Prevention and Resource Efficiency		Risk: Localized pollution and waste from processing units, ICT/solar equipment, and water/energy use. Impact: Low, limited, localized environmental effects. Mitigation Measures: A Waste Management Plan will be implemented across all project sites, promoting reduce–reuse–recycle practices and circular use of by-products. Resource efficiency protocols will be enforced, and contractors and workers trained in safe handling and PPE use. Work will stop immediately if cultural or physical heritage is found, with the site secured and authorities notified. Regular monitoring will ensure compliance.
Public Health		Risk: Increased livestock mobility and market interactions may raise zoonotic disease risks (e.g., Rift Valley Fever, Camel Flu). Impact: High, it may affect both livestock and human health. Mitigation: Strengthen veterinary services and disease surveillance in both Ethiopia and Somalia, integrated into the digital Early Warning System. Link livestock certification to WOAHA standards. Coordinate with recognized quarantine facilities (Berbera and Bosaso in Somalia; relevant Ethiopian facilities). Engage professional livestock associations in both countries and establish active surveillance coordination with Gulf Cooperation Council import authorities. Train veterinary teams and traders on PPE use, hygiene, cold-chain protocols, and biosafety to minimize human and livestock exposure.
Physical and Cultural Heritage		Risk: Accidental disturbance or damage to archaeological or cultural sites during construction of water harvesting or processing facilities. Impact: Low–Medium Mitigation: Conduct pre-screening and consultations with communities, customary leaders, and national cultural heritage authorities before siting any infrastructure under Components 2 and 3 to safeguard cultural assets and respect traditional practices.
Land and Soil Conservation		Risk: Poor infrastructure or grazing management may cause localized soil erosion and productivity loss. Impact: Low Mitigation: Apply SWC structures (e.g., half-moons, contour bunds), enforce rotational grazing, include erosion and sediment control plans in construction, ensure proper site selection and drainage, and link restoration success to livelihood incentives for sustained community commitment.

PART III: IMPLEMENTATION ARRANGEMENTS

The project will be implemented through a multi-stakeholder approach involving national governments, regional and local partners, to ensure effective execution, coordination, and long-term sustainability.

UNIDO as Implementing Entity (IE) and Executing Entity (EE):

UNIDO will serve as the Multilateral Implementing Entity (MIE) of the project and will be responsible to the Adaptation Fund for overall project-cycle management, fiduciary oversight, quality assurance, environmental and social safeguards compliance, gender-policy compliance, monitoring and evaluation oversight, and reporting to the Adaptation Fund. UNIDO's role as the MIE, is distinct from any execution functions that UNIDO may perform under specific outputs.

In accordance with Adaptation Fund policy on combined IE/EE roles, UNIDO will establish and maintain a structural firewall between its IE and EE functions. A dedicated EE team will operate under independent management arrangements, with separate reporting lines, physical office separation, and distinct budgetary codes to prevent conflicts of interest and ensure fiduciary independence.

Executing Entities:

In both countries, the project will be executed by national entities, ensuring that interventions are locally driven and aligned with national policies. The Agricultural Transformation Institute (ATI) has been designated as the Executing Entity (EE) for Ethiopia, while in Somalia, the East African Environmental, Agro and Livestock Company (East-Agro) is the designated EE. In addition to the national EEs, UNIDO will fulfil a distinct and non-overlapping execution role for specific outputs of the project.

The national EEs will bear primary responsibility for day-to-day implementation, including coordination with local authorities, community engagement, service delivery, infrastructure supervision, and operational management of project activities across target locations. UNIDO's execution mandate will be complementary in scope, encompassing specialised technical support for value chain development, innovation hubs for youth and women empowerment, agrivoltaic system planning and installation, capacity building, green jobs creation, international procurement, regional coordination, knowledge management, south-south cooperation, and institutional capacity strengthening. In performing its execution functions, UNIDO will protect fiduciary and technical standards while transferring methods, tools, systems, and execution experience to the national EE and other national/sub-national partners over the project cycle.

Project Executing Partners:

Government Partner: The Ethiopian Ministry of Agriculture and the National Climate Fund within the Ministry of Finance in Somalia will provide government leadership and strategic oversight and jointly chair the Project Steering Committee (PSC), ensure alignment with national adaptation frameworks, and facilitate coordination with line ministries in the respective countries. Both government institutions will serve as the central policy counterpart but will not manage project funds. Other relevant line ministries including Ministry of Planning and Development (MoPD), MoLFR, MoAI and Ministry of Environment and Climate Change (MoECC) in Somalia, will also participate in the PSC to provide technical oversight and guidance related to technical matters.

Technical implementing partners: During the PFG phase, in consultation with the NDAs and the line ministries, the International Center for Agricultural Research in the Dry Areas (ICARDA) and the Intergovernmental Authority on Development (IGAD) in Eastern Africa (IGAD) would be further consulted to define the exact technological services to be deployed in the project as specialized implementing partners. ICARDA, as a technical implementing partners, offers expertise on climate-resilient small-ruminant systems, regenerative rangeland management, promotes ICARDA's One Health approach/ the Integrated Herd-Health Package (I2HP) for smallholder farmers, provides digital climate information,

promotes democratization of climate information/EWS, introduces a real-time GeoAI disease and productivity monitoring systems, and establishes a Regional Climate-Smart Livestock Hub (“Smart Pack”), owned and coordinated by the local institutions. Whereas IGAD will support a regional support through peace building and conflict reduction through its regional policy support systems, harmonizing animal health regulations, supporting regional livestock trade frameworks, coordinating transboundary disease surveillance, and facilitating pastoral mobility agreements.

Summary of Implementation/ Execution arrangements:

The ATI in Ethiopia and East Agro in Somalia will lead the execution of Component 1 (Institutional and Technical Capacity Strengthening) and Components 2 (Community-Based and Inclusive Rangeland Resource Management) in their respective countries, while UNIDO will lead the execution of Component 3 and Component 4.

Under Component 1, ATI (Ethiopia) and East-Agro (Somalia) will be responsible to execute **Output 1.1.1 and Output 1.1.2**. Both Government institutions will ensure engagement with their respective national and local governments for the operationalization of the cross-border rangeland management structure. Under this component, UNIDO and ICARDA will carry out **Output 1.1.3**, to effectively support the establishment of regional learning platform through dedicated technical services.

Under Component 2, ATI (Ethiopia) and East-Agro (Somalia) will lead engagement of communities, NGOs and national institutions to co-design and implement appropriate rangeland management approaches in the project locations (specifically lead **Output 2.1.1 and Output 2.2.1**). UNIDO jointly with ICARDA, will facilitate the identification and uptake innovations and climate-smart technological solutions for resilience building and rangeland resource management in the region (specifically **Output 2.1.2 and Output 2.2.2**).

Under Component 3, UNIDO will lead the execution of this component with special implementation agreement with ICARDA. UNIDO will facilitate harmonization standards, establishment of traceability systems and promote regional learning on value-addition for climate-resilient rangeland resource management, and responsible to execute Output 3.1.3. ICARDA will specifically implement **Output 3.1.1 and Output 3.1.2**. ICARDA will collaborate with CBOs (to be identified during the PFG stage) to ensure inclusiveness and scalability of the project interventions. Thus, the local CBOs will have an instrumental role in the last mile services by engaging with communities and MSMEs in the targeted regions in the dissemination of climate-resilient livestock breeding and value addition.

Under Component 4, UNIDO in close collaboration with ICARDA and IGAD will implement the regional policy collaboration and regional climate advisory services. **Output 4.1.1** will be implemented by IGAD; **Output 4.1.2** will be entirely executed by ICARDA; and UNIDO will be responsible for undertaking **Output 4.1.3**, where UNIDO will collaborate with the national EEs (ATI and East-Agro). The national EEs ATI and East -Agro will assist UNIDO through the coordination with their respective national governments, institutions and local communities to implement operability of cross border early warning and climate advisory systems in the target regions.

As part of the project execution function, UNIDO will lead the execution of the project midterm and a final independent evaluation which will be conducted as per UNIDO and the AF requirements and standards. The independent project evaluation will support learning, continuous improvement and accountability, and provides information about result and practices.

Governance and oversight:

A Project Steering Committee (PSC) will be set up at the regional level to provide strategic oversight, risk adaptation, and performance monitoring throughout the project. The PSC will be jointly chaired by Ethiopia and Somalia and co-chaired by UNIDO I its capacity as the MIE of the AF. The PSC will ensure that the project aligns with national policies and regional adaptation frameworks, facilitating coordination between Ethiopia and the Somalia to avoid duplication of efforts. It will also address implementation

challenges, ensuring effective resource allocation. The PSC will also support regional cooperation by engaging with the East African Community (EAC) and other regional initiatives in the Horn of Africa, fostering collaboration and sharing of knowledge and resources.

Each set of activities to be implemented in Ethiopia and Somalia by UNIDO, will be governed by the provisions of the Standard Basic Cooperation Agreement concluded between the Government of the recipient countries. These are:

- The Government of the Federal Democratic Republic of Ethiopia agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Program and the Government, signed on 26 February 1981 and entered into force on 5 November 1984.
- The Government of the Federal Republic of Somalia agrees to apply to the present project, *mutatis mutandis*, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed on 16 May 1977 and entered into force on 11 October 1978.

Alignment with the Results Framework of the Adaptation Fund

AgrInnova supports the Adaptation Fund's results framework grounding innovation in community leadership while connecting local solutions to regional systems for scaling. Community breeders, rangeland committees, cooperatives, and youth monitors adapt practices to local climate realities, and these innovations are strengthened through shared early warning platforms, coordinated rangeland corridors, and IGAD-led knowledge exchange. The updated results framework reflects this dual approach by tracking community-level gains in resilience and governance, alongside regional outcomes such as cross-border alerts, restored corridors, and enhanced institutional capacity across Ethiopia and Somalia.

Table 5: Alignment of the project with AF results framework

Project Objective(s) ¹	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (US\$)
Strengthen the climate resilience and adaptive capacity of vulnerable agro-pastoralist and pastoralist communities in Ethiopia and Somalia's arid and semi-arid rangelands.	# Households reached # of CBBPs, PUs, Value-add units, and Market Hubs functional %Women & youth participation in CBBPs, PUs, value-add, hubs %of beneficiaries reporting improved resilience (feed, water, markets, finance, EWS)	Outcome 1: Reduced exposure to climate-related hazards and threats.	Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	4,750,000
		Outcome 2: Strengthened institutional capacity to reduce risks.	Indicator 2: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	2,137,231
		Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes	Indicator 3.2: Increase in application of appropriate adaptation responses	1,595,749
		Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets	Indicator 4: Increased responsiveness of development sector services to evolving needs from changing and variable climate	400,000
		Outcome 5: Increased ecosystem resilience in response to climate variability.	Indicator 5: Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	2,500,000
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Indicator 6.2: Percentage of targeted population with sustained climate-resilient alternative livelihoods	3,550,000
		Outcome 7: Improved policies and regulations that promote and enforce resilience measures	Indicator 7: Climate change priorities are integrated into national development strategy	3,209,862
		Outcome 8: Innovation for effective, long-term adaptation to climate change accelerated, encouraged, and enabled to scale up	Indicator 8.1: No. of new, adapted or improved adaptation solutions developed contextually and with the inclusion of the communities most vulnerable to climate change	7,110,939
Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (US\$)
Component 1. Stronger institutional and technical capacity for coordinated and sustainable rangeland and livestock management.				
Outcome 1.1. Local institutions, communities, and cooperatives empowered with devolved authority and skills for	# of master plans developed/endorsed • % of recommendations integrated • # of stakeholders applying guidelines • # of cooperatives registered	Output 7.1: Improved integration of climate-resilience strategies in country development plans	Core Indicator 7.1.1: Policies, strategies, and/or plans developed or adjusted to integrate climate risk considerations [of policies, strategies, and/or plans, disaggregated by scale]	1,700,000
		Output 2.1: Strengthened capacity of institutions to understand and better address climate risks	2.1.1: Institutions supported strengthening capacity to understand and address climate risks and resilience.	2,137,231

coordinated, community-led rangeland and livestock management under climate change.	• % of cooperatives trained • # of women/youth in leadership • % of cooperatives with improved services • # of knowledge platforms operational • # of learning events held • # of knowledge products shared • % of participants reporting improved access	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2.1: Climate resilience knowledge products and/or tools developed and shared with stakeholders	745,749
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Component 2. Community-based and inclusive rangeland resource management

Outcome 2.1 Location-specific regenerative rangeland practices co-designed, owned, and driven by pastoralist and agropastoral communities.	• # of micro-basins / ponds/sand dams / solar pumps constructed • # of water-user groups established and functional • % of equitable / conflict-free water management • # of hectares of degraded rangeland rehabilitated (ha) • # of community grazing calendars and rules adopted • # of RIPs / Pastoral Field Schools established • # of community rangeland monitors trained and reporting • % of rangeland monitoring data integrated into digital platforms • # of adaptive management decisions triggered by monitoring	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national, and regional adaptation innovation	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	1,810,939
		Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management.	1,500,000
		Output 3.3: Increased ownership of adaptation and climate risk reduction processes	Indicator 3.3.1: Number of local institutions and/or communities responsible for decision-making over how adaptation solutions are defined, prioritized, designed, and/or implemented.	850,000
		Output 4: Vulnerable development sector services and infrastructures strengthened in response to climate change impacts, including variability	Indicator 4.1.1: Development sector services strengthened to respond to climate variability and change.	400,000

Outcome 2.2 Rangelands' health enhanced through inclusive and community-driven management systems.	-Hectares of rangeland showing improved condition -# of functioning community rangeland monitoring groups -% of monitoring data used for adaptive management decision # of small-scale water harvesting structures built and operational % of water points managed through equitable, conflict-free arrangements.	Output 5.1: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	Indicator 5.1.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management.	1,000,000
		Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems.	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	2,300,000

Component 3. Innovative and inclusive livestock (small ruminant and camel) production for resilient livelihood

Outcome 3.1: Climate-smart small ruminant and camel systems enhanced, resulting in strengthened, resilient, livelihoods.	# of CBBPs established / scaled (Sheep, goats, camels) • # of improved sires disseminated • % of livestock productivity gains (weight, milk, survival) • # of women and youth engaged in breeding and husbandry • # of producers accessing extension services • # of aggregation hubs operational (chilling / grading / storage) • # of producers using traceability / e-tag / QR systems • # of producers accessing digital market and advisory services • % of reduction in post-harvest losses	Output 8.1: Innovations identified and piloted that collectively enhance local innovation capacity and contribute to the development of local, national and regional adaptation innovation ecosystems	Indicator 8.1.2: Innovations piloted that demonstrate local innovation participation and/or local innovation benefit.	3,000,000
		Output 1.2: Targeted population groups covered by warning and advisory services for climate-related hazards and threats	Indicator 1.2.2: People covered by new or improved early warning systems.	2,700,000
		Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	Indicator 6.1.1: People receiving targeted support for new and/or improved livelihoods to manage climate risk.	3,550,000
Component 4. Regional cooperation and digital innovations for early warning system				
Outcome 4.1: Regional collaboration and community-centered digital solutions strengthened for adaptive, cross-border rangeland and livestock management	# of unified digital platforms & dashboards established • # of climate advisories & anticipatory actions disseminated per year • # of communities receiving timely alerts • # of regional dashboards functional • # of AI alerts produced & acted upon • #of youth/cooperatives trained as digital rangeland monitors • # of Ethiopia–Somalia–IGAD dialogues held • # of cross-border monitoring committees functional	Output 7.1: Improved integration of climate-resilience strategies into country development plans	Core Indicator 7.1.1: Policies, strategies, and/or plans developed or adjusted to integrate climate risk considerations.	1,509,862
		Output 1.2: Targeted population groups covered by warning and advisory services for climate-related hazards and threats	Indicator 1.2.2: People covered by new or improved early warning systems.	2,050,000
Total outcome level grant amount				25,253,781I

PART IV: ENDORSEMENT BY GOVERNMENTS 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 for each country participating in the proposed project/programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please

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

attach the endorsement letters with this template; add as many participating governments as possible if a regional project/programme:

H.E. Mr. Seyoum Mekonen Hailu State Minister, Environment and Climate Change and Population and Development Ministry of Planning and Development /Environmental Protection Authority, Addis Ababa, Ethiopia Tel: +251 (0) 111403049 E-mail: bement2002@gmail.com Alternante E-mails: eenvironment@gmail.com	Date: October 10, 2025
Mr. Liban Obsiye Executive Director National Climate Fund (NCF) National Climate Fund Corso Somalia Street, Shangaani District Mogadishu, Somalia Tel: +252 61 0997293 Email: edncf@mof.gov.so	Date: July 15, 2026

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 including the Ethiopian NAP, NDC 3.0, Green Legacy initiative, LT-LEDS-2023; and Somalian NAP, NDC 3.0, NTP and LSDS-2019, and other national climate adaptation and resilience building strategies; 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.	
<i>Name and Signature/</i> Implementing Entity Coordinator: Ms. Ganna Onysko Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization - UNIDO Implementing Entity Coordinator	
Telephone: +43 1 26026 3708	Telephone: +43 1 26026 3708
Project Contact Person: Ms. Ganna Onysko	
Email: g.onysko@unido.org	



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የፕላንና ልማት ሚኒስቴር
FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF PLANNING AND DEVELOPMENT

ቁጥር./NO : mopd/3/6-12/16
ቀን/DATE : 10 OCT 2025

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat @Adaptation-Fund.org
Fax 202 522 3240/5

Subject: Endorsement for “Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa (AgrInnova)”

In my capacity as designated authority for the Adaptation Fund in Ethiopia, I confirm that the above regional project proposal is in accordance with the government’s national priorities in implementing adaptation activities to reduce adverse impacts and risks posed by climate change in Ethiopia.

Accordingly, I am pleased to endorse the above regional project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the United Nation Industrial Development Organization (UNIDO) executed by the Agricultural Transformation Institute (ATI), UNIDO and at the request of the Government of Ethiopia the project will also be partially executed by relevant local institutions, CSOs, NGOs , intergovernmental organizations, and research and development (R&D) institutions.

Sincerely,


Seyoum Mekonen Hailu
State Minister





Federal Republic of Somalia
Ministry of Finance
National Climate Fund (NCF)
Office of The Executive Director

REF: NCF/0013/2026

July 15, 2026

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for the project Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa.

In my capacity as the designated authority for the Adaptation Fund in Somalia, I confirm that the above regional project/programme proposal is in accordance with the government's national priorities for implementing adaptation activities to reduce the adverse impacts and risks posed by climate change in Somalia.

Accordingly, I am pleased to endorse the above regional project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by the United Nations Industrial Development Organization (UNIDO) and executed by UNIDO and the East African Environmental, Agro and Livestock Company (East-Agro).

Yours sincerely,

Mr. Liban Obsiye
Executive Director,
National Climate Fund, Ministry of Finance
Federal Republic of Somalia





Revised PFG Submission Form1

Project Formulation Grant (PFG)

Submission Date: 03.08.2026

Adaptation Fund Project ID: xxxx

Country/ies: Ethiopia and Somalia (Regional Project)

Title of Project/ Programme: Agro-innovation and livestock systems for resilient livelihoods in the Horn of Africa

Type of IE (NIE/RIE/MIE): MIE

Implementing Entity: United Nations Industrial Development Organization (UNIDO),

Executing Entity/ies: UNIDO

A. Project Preparation Timeframe

Start date of PFG	1 January 2027
Completion date of PFG	30 September 2027

B. Proposed Project Preparation Activities (\$)

In line with the Adaptation Fund's requirements, the PFG budget will support the conduct of local-level Climate Risk and Vulnerability Assessments (CRVAs) as a capacity-strengthening investment, enabling local institutions and communities to generate, interpret, and apply climate risk information to inform location-specific project design and ensure that proposed adaptation interventions are locally owned, context-appropriate, and responsive to identified climate risks.

Table 1. List of activities and expected outputs of the PFG

List of Proposed Project Preparation Activities	Output of the PFG Activities	US\$ Amount	Budget note² (Based on Lead Organization)
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¹ As presented in AFB/PPRC.33/40 Annex 1.

² The proposal should include a detailed budget with budget notes indicating the break-down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

1. Conduct integrated baseline, gender and vulnerability, climate, environmental and social risk, and institutional analyses through participatory stakeholder engagement to generate a validated evidence base for climate-resilient adaptation planning.	Output 1: Integrated baseline and risk analysis completed Deliverables: baseline, gender vulnerability assessment, and institutional and policy alignment review reports; environmental & social risk assessment report developed and endorsed by key stakeholders.	80,000	Integrated baseline and risk analyses will be conducted through field assessments, stakeholder consultations, data analysis, and validation of findings to inform climate-resilient adaptation planning. - Baseline assessment and national and sub-national stakeholder/community consultation: US\$25,000 - Gender and vulnerability analysis: US\$10,000 - Environmental & social risk assessment (ESS): US\$35,000 - Climate risk & impact modelling: US\$5,000 - Institutional & policy alignment review: US\$5,000
2. Apply spatial mapping, data analytics, and feasibility assessments to identify and prioritize sustainable climate adaptation solutions and prepare, undertake HACT assessment for the selected EEs; and revise and finalize a compliant Adaptation Fund submission package.	Output 2: Climate adaptation solutions and AF submission package developed. Deliverables: a fully-fledged AF project proposal developed according to the AF policies and requirements.	30,000	The estimated budget is required to undertake activities, such as identification and prioritization of climate adaptation solutions; conduct environmental, social, and financial feasibility assessments; and preparation and revision of the adaptation fund submission package. - National and sub-national stakeholder consultation: US\$10,000 - Mapping and data analytics, and formulation of the AF proposal: US\$15,000 - Analysis of proposed solutions, sustainability & financial feasibility: US\$5,000
3. Develop and nationally validate a participatory implementation framework, including monitoring, evaluation and learning, sustainability and exit strategies, through structured stakeholder consultations and workshops.	Output 3: Implementation, monitoring, and sustainability framework validated Deliverables: A participatory implementation, monitoring, learning, and sustainability framework is developed and nationally validated to guide effective project delivery.	15,000	The estimated budget will support participatory implementation planning and institutional arrangements, development of monitoring, evaluation, and learning (MEL) and sustainability frameworks, and the organization of two national stakeholder consultation and validation workshops to review, refine, and formally endorse the implementation framework and sustainability arrangements. - Develop MEL, an exit strategy, synergies, and sustainability planning: US\$5,000 - National st- Federal and Regional/FSM level stakeholders' validation workshops: US\$10,000 -
HACT assessments for local EE (for both Ethiopia and Somalia EEs)	Supporting local institutions (EEs) to qualify the required HACT for PIA.	11,364	HACT assessments for local EE (for both Ethiopia and Somalia): US\$11,364

Total Project Formulation Grant (Output 1+ Output 2)		136,364	
Implementing-Entity management fee (Agency fee)	10%	13636.4	
Total Project Formulation Grant		150,000	

Please describe below each of the PFG activities and provide justifications for their needs and for the funding required:

Table 2: Summary Table of PFG Activities, Descriptions, and Justifications

PFG Activity	Description of the Activity	Justification & Need for Funding
Baseline assessment, initial stakeholder Engagement & Participatory Planning	Conducts baseline data collection and early consultations with community groups, pastoralists, agro-pastoralists, women, youth, and government institutions to inform fully fledged project proposal design.	Establishes essential baseline evidence to assess climate vulnerability, adaptive capacity, and current livelihood resilience across pastoralist and agropastoral communities. PFG funding is required to conduct rigorous, field-based data collection across multiple regions and countries, ensuring project design is grounded in sound climate risk evidence rather than assumptions.
Gender and vulnerability analysis focusing on pastoral and agro-pastoral communities, youth, and women.	Analyzes gender-differentiated vulnerabilities, adaptive capacity, and climate risks among women, youth, and marginalized groups.	Reduces maladaptation risk and builds inclusive adaptive capacity by identifying gender-specific and youth vulnerabilities and climate impacts. PFG funding is needed to conduct targeted, participatory assessments with women, youth, and marginalized groups, ensuring adaptation interventions address differentiated vulnerabilities and do not reinforce existing inequality.
Environmental & social risk assessment (ESS) (Rangeland ecosystems, agrivoltaics, setting up/upgrading of pilot agricultural transformation centers)	Identifies environmental and social risks related to rangelands, agrivoltaics, and agricultural transformation centers; prepares ESS screening and mitigation frameworks; develops detailed ESMP.	Safeguards project investments and community welfare by ensuring adaptation interventions are environmentally and socially viable and do not generate ecosystem degradation or social harm. PFG funding is required to conduct site-specific ESIA processes across dispersed, cross-border locations and to integrate community knowledge into mitigation strategies.
Climate risk & impact modelling	Develops climate projections, hazard mapping, and impact modeling for agriculture,	Enables evidence-based prioritization of adaptation options by translating regional climate science into locally relevant hazard

	rangelands, and integrated systems.	and impact profiles. PFG funding is required to downscale climate data to actionable spatial and temporal scales and to conduct participatory interpretation of modeling outputs for community and institutional planning.
Institutional & policy alignment review	Reviews coherence with Ethiopia and Somalia's NDCs, NAPs, and regional climate adaption strategies and policies, regional cooperation and integration, and sectoral strategies; identifies integration opportunities.	Strengthens institutional coordination and coherence between national, regional, and community-level adaptation priorities. PFG funding is justified to conduct multi-country policy analysis and identify formal mechanisms for anchoring project interventions within national and IGAD frameworks.
Mapping and data analytics for project areas and analysis of appropriate climate change adaptation solutions (strategies to avoid maladaptation).	Produces GIS-based maps, farmer profiles, spatial risk analysis, and proposes location-specific adaptation measures; includes algorithm development for monitoring.	Reduces maladaptation risk and targets adaptation investments efficiently by generating fine-scale spatial analysis of climate vulnerability, livelihood systems, and feasible intervention sites. PFG funding is needed to conduct community-validated mapping and develop decision-support tools that allow communities and local institutions to select and sequence interventions based on site-specific climate risks and livelihood contexts.
Proposed adaptation solutions' environmental sustainability & financial feasibility analysis	Evaluates cost-effectiveness, environmental sustainability, long-term viability, and co-financing potential (private sectors engagement) of proposed adaptation solutions.	Strengthens sustainability and financial viability of project outcomes by enabling rigorous assessment of trade-offs, affordability, and long-term resilience benefits across adaptation options. PFG funding is required to tailor feasibility analysis to small-scale, pastoral and agropastoral livelihood systems and to identify appropriate financing mechanisms.
Develop a monitoring, evaluation & learning plan (MEL); an exit strategy, synergies, and sustainability planning	Establishes MEL framework, indicators, learning pathways, and exit strategy to ensure outcomes are sustained post-project.	Embeds adaptive management and learning into project implementation and ensures long-term sustainability of adaptive capacity gains. PFG funding is needed to co-design MEL systems with community stakeholders and to establish feedback mechanisms that allow project management to adjust interventions based on climate performance and livelihood outcomes..

National and Regional stakeholder consultation and validation workshops (2x)	National and Regional workshops to validate assessments, finalize project design, and secure multi-stakeholder endorsement.	Ensures multi-level coordination and institutional endorsement of adaptation investments. Additional funding is justified by the need to convene cross-border, multi-stakeholder validation processes that align project design with national and regional climate adaptation strategies and secure government and institutional commitment.
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For LLA Projects only:

If requesting additional funding for LLA projects to enable devolving decision making to the local level, please specify the activities that would directly serve to enable devolving decision making to the lowest appropriate level and enable local actors to make informed decisions on how adaptation actions are defined, prioritized, designed, and implemented:

Please provide justification for their needs and for additional funding required:

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation.

Implementing Entity Coordinator, IE Name	Ms. Ganna Onysko Senior GEF, GCF, AF Coordinator Division of Funding Partner Relations Directorate of Global Partnerships and External Relations United Nations Industrial Development Organization - UNIDO Implementing Entity Coordinator Tel. and email: +43 1 26026 3708 TO: g.onysko@unido.org CC: gef@unido.org / glo@unido.org / f.haidara@unido.org		
Signature		Date (Month, day, year)	August 3, 2026
Project Contact Person	Ms. Yvonne LOKKO Head IET/AGR/AIB Email: y.lokko@unido.org Work Phone: +43 1 26026 3737		
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ANNEXES

Annex 1. Summary of virtual consultation workshops with NDAs and partners in Ethiopia and Somalia.

Table 6: Tabulated summary of virtual consultation with NDAs and partners in Ethiopia and Somalia

Country / Meeting Title	Date & Time	Location / Format	Participants (Key Institutions)	Purpose of the Meeting	Main Discussion Points & Outcomes	Follow-up / Next Steps
Ethiopia – Virtual Consultation with the NDA and Key Sector Partners (MoA, ATI, UNIDO, MoPD)	23 July 2025 (2:00–3:30 PM Addis Ababa time)	Virtual Meeting	- Ministry of Planning & Development (MoPD – NDA) - Ministry of Agriculture (MoA) - Agricultural Transformation Institute (ATI) - UNIDO HQ & Regional Office	To build shared understanding among national stakeholders on AgrInnova's objectives, strategic relevance, and next steps for Adaptation Fund concept note submission.	- The NDA (MoPD) emphasized alignment with Ethiopia's NAP, NDC, and CRA Strategy, and confirmed readiness to endorse the project upon submission of revised documents. - The MoA reaffirmed its support, highlighting AgrInnova's contribution to livestock resilience and sustainable resource management. - ATI outlined the project rationale, focusing on capacity building, technology transfer, and inclusive innovation for women, youth, and pastoralists. - UNIDO clarified its dual role as Implementing and Executing Entity, responsible for concept note preparation and coordination with the AF Secretariat.	- Finalize and circulate the revised pre-concept note incorporating feedback. - Initiate internal clearance for regional submission. - Organize a joint NDA meeting (Ethiopia–Somalia) by late August / early September 2025 for coordinated endorsement.
Somalia – Virtual Consultation with NDA and National Stakeholders, UNIDO, and ICARDA (	11 July 2025	Virtual Meeting	- Ministry of Environment & Climate Change (MoECC) (Somalia) - UNIDO Somalia & HQ - ICARDA Ethiopia	To define Somalia's national priorities and areas of focus under the AgrInnova regional project, ensuring alignment with the Adaptation Fund and Ethiopia's component.	- The NCF (NDA) confirmed endorsement and strong national ownership of the regional project. - Key national priorities identified: - Capacity development: training for pastoralists, extension workers, and government staff. - Livestock production: focus on sheep, goat, and camel systems, and improved animal health. - Rangeland development: restoration, sustainable management, and fodder initiatives. - Value addition: support for milk processing, ghee, cheese, solar-powered cold chains, and small-scale slaughterhouses. - Emphasized local institutional capacity and private sector participation.	- Refine Somalia's project component in consultation with stakeholders. - Ensure regional coherence with Ethiopia's priorities. - Proceed with concept note drafting and submission to the Adaptation Fund Secretariat.

Annex 2: Local community consultations in various program locations in Ethiopia and Somalia

Table 7: Tabulated summary of consultation outcomes with local communities

Country / Regions Covered	Date	No. of Participants (M/F)	Key Discussion Topics	Main Issues and Findings	How Reflected in AgrInnova Program Design
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Ethiopia – Somali Region (Degehabur), South Omo Zone (Bena Tsemay), and Oromia Region (Yabello & Harawaxxuu)	Oct 29 – Nov 9, 2025	206 (101M / 105F)	Climate vulnerability; rangeland and water management; livestock production; cooperative capacity; value chains; gender and youth inclusion; private sector engagement.	Communities reported frequent droughts, declining pasture and water availability, and degraded rangelands that threaten livestock productivity and household resilience. Institutional and cooperative capacity gaps, limited veterinary services, and poor market access were major barriers. Women and youth are active in goat fattening, milk processing, and fodder production but remain underrepresented in leadership. There is strong community demand for rangeland rehabilitation, water harvesting, animal health systems, and feed development.	Findings informed the Ethiopia component of the AgrInnova Program, contributing to: • Component 1: Institutional Capacity & Governance: Strengthening local cooperatives, rangeland councils, and district-level adaptation planning. • Component 2: Resilient Livestock Systems: Integrating climate-smart breeding, forage systems, and community-based rangeland restoration. • Component 3: Livelihood Diversification & Women's Empowerment: Scaling up women-led goat and milk enterprises and integrating market access interventions. • Component 4: Early Warning & Knowledge Systems: Strengthening information flow and traditional knowledge integration for risk preparedness.
Somalia – Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland)	Oct 30 – Nov 7, 2025	99 (64M / 35F)	Climate shocks and vulnerability; rangeland and water management; cooperative governance; livestock value chains; institutional capacity; innovation and early warning systems.	Consultations revealed intensifying droughts, erratic rainfall, and periodic flooding along the Shabelle River. Key challenges include rangeland degradation, water scarcity, weak cooperatives, and limited coordination among institutions. Communities prioritized climate-smart water harvesting, rangeland restoration, strengthening cooperatives, and adopting digital early-warning and livestock market tools.	The findings shaped the Somalia component of the AgrInnova Program: • Component 1: Institutional Capacity & Governance: Building coordination among ministries, cooperatives, and local authorities for locally led adaptation. • Component 2: Resilient Livestock Systems: Supporting regenerative rangeland management, forage and water infrastructure, and animal health improvement. • Component 3: Livelihood Diversification & Women's Empowerment: Promoting inclusive value chains and enterprise development. • Component 4: Early Warning & Knowledge Systems: Expanding access to digital climate services, localized forecasts, and market information tools. These priorities reaffirm AgrInnova's commitment to community-driven, inclusive, and innovation-based adaptation in pastoral and agro-pastoral systems.



Figure 4: Community consultation in Somalia and Ethiopia

Annex 3: Gender analysis summary based on consultations in Ethiopia and Somalia

Table 8: Tabulated summary of gender analysis outcomes

Country / Regions Covered	Date	Women Participants (approx.)	Key Discussion Topics	Main Gender Issues and Findings (Women's Perspectives – Understanding, Challenges, and Priorities)	How Reflected in AgrInnova Program Design
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Ethiopia – Somali Region (Degehabur), South Omo Zone (Bena Tsema), and Oromia Region (Yabello & Harawaxxuu)	Oct 29 – Nov 9, 2025	105 women participants (approx.)	Women's understanding of climate change; impacts on livelihoods and food security; roles in livestock and water management, access to resources and decision-making; adaptation priorities.	Understanding of Climate Change: Women described climate change as “a shift in rain and heat patterns that disrupts our animals, crops, and family well-being.” They linked it to prolonged droughts, unpredictable rains, pasture loss, and water scarcity. Challenges: Women face increased workload collecting water and fodder, loss of income from milk and crop sales, limited access to finance, land, and information, and exclusion from decision-making. Many noted that recurrent droughts “make survival harder and work heavier,” with rising food insecurity. Local Adaptation Perspectives: Women prioritize water harvesting, fodder cultivation, cooperative savings, and collective rangeland management. They emphasized traditional knowledge, such as rotational grazing and drought prediction from environmental signs, but want training to blend these with new practices. Agency: Despite barriers, women see themselves as key drivers of household adaptation through livestock care, milk processing, and savings groups, but call for recognition and inclusion in community planning.	These insights informed the Ethiopia component of the AgrInnova Program through: • Component 1: Institutional Capacity & Governance: Mainstreaming women's leadership in cooperative and adaptation committees, ensuring their participation in local resource planning. • Component 2: Resilient Livestock Systems: Supporting women's access to improved breeds, forage systems, and water infrastructure. • Component 3: Livelihood Diversification & Women's Empowerment: Promoting women-led goat fattening and dairy enterprises, microfinance, and skills training. • Cross-cutting: Integrating women's experiential understanding of climate change into local adaptation plans and empowering them as co-designers of climate actions.
Somalia – Baidoa (Southwest), Beletweyne (Hirshabelle), Dhusamareeb (Galmudug), and Garowe (Puntland)	Oct 30 – Nov 7, 2025	35 women participants (approx.)	Women's understanding of climate change and its impacts; adaptation leadership; access to finance, training, and technology; barriers to inclusion; priorities for resilience building.	Understanding of Climate Change: Women consistently defined climate change as “long dry seasons, poor rains, and floods that destroy our crops, water sources, and animals.” They see climate change not as an abstract issue but as a lived, daily struggle tied to food insecurity, livestock loss, and displacement. Challenges: Women face loss of income from milk and vegetable sales, increased burden in fetching water, limited mobility, and exclusion from formal adaptation discussions. They highlighted that “when drought comes, men migrate with animals while women remain to feed the family,” illustrating their frontline exposure to climate risks. Local Adaptation Perspectives: Women prioritize community water harvesting, fodder production, small-scale irrigation, savings groups, and livestock health services. They prefer practical, locally manageable solutions, such as repairing wells and creating women's savings groups	



Figure 5: Consultation with women groups in Ethiopia and Somalia

Annex 4: Tabulated summary of stakeholders' validation workshop held in Addis Ababa, Ethiopia

Table 9: Tabulated summary of stakeholders' validation workshops in Ethiopia

Stakeholders Consulted	Date	No. of Participants (M/F)	Topics Discussed	Key Outcomes / Issues Raised	How is Considered in Project Design
Government representatives from Ethiopia and Somalia, UNIDO technical team, ICARDA and research partners, private sector actors, financial and insurance institutions and disaster risk management/climate experts	11 Nov 2025	28	- Overview of AgrInnova Program design and components. - Presentation on community consultation processes conducted in Ethiopia and Somalia. - SmaRT Pack (Small Ruminant Technologies and Practices) approach. - Community-Based Breeding Program (CBBP). - Multi-Hazard Early Warning System (MHEWS). - Risk management and insurance linkages. - Policy and institutional coordination, conflict sensitivity, and inclusion.	- Emphasized cross-border collaboration and policy alignment between Ethiopia and Somalia. - Recommended integration of SmaRT Pack, CBBP, and MHEWS into the design. - Highlighted need for financial linkages, index-based insurance, and data-efficient risk tools. - Stressed conflict sensitivity, institutional coordination, and knowledge integration. - Noted importance of extension harmonization and livelihood diversification.	Integrated across the Program Concept Note (PCN): - Component 1: Regional coordination & policy coherence. - Component 2: Resilient livestock systems (SmaRT Pack, CBBP). - Component 3: Financial inclusion & risk management. - Component 4: Climate information & early warning. - Cross-cutting: Institutional capacity, gender inclusion, and conflict sensitivity.

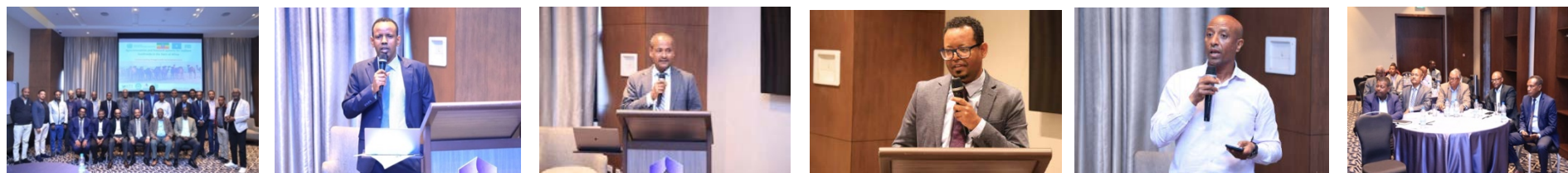


Figure 6: Photos from stakeholders' validation workshop held in Addis Ababa

Annex 5: Consolidated List of Participants of the virtual Consultation Workshops with NDAs (Ethiopia and Somalia)

Table 10: List of attendees of virtual consultation with NDAs

No.	Name	Institution / Organization	Position / Title	Country
1	Dr. Firew Tegene	Agricultural Transformation Institute (ATI)	Director, Climate and Environment Sector / Project Focal Person	Ethiopia
2	Dr. Mitiku Ayele	Ministry of Agriculture (MoA)	Senior Expert, Livestock	Ethiopia
3	Mr. Mohammed Andoshe	Ministry of Planning and Development (MoPD) – National Designated Authority (NDA)	Representative of the NDA / Senior Expert	Ethiopia
4	Dr. Yvonne Lokko	UNIDO Headquarters (IET/AGR/AIB)	Unit Head, Agribusiness Development and Innovation Division	International

5	Dr. Yoseph Delelegn	UNIDO Headquarters (IET/AGR/AIB)	Project Coordinator, Agribusiness Development and Innovation Division	International
6	Mr. Asegid Adane	UNIDO Regional Office (Addis Ababa)	Industrial Development Officer	Ethiopia
7	Mr. Olijira Kuma	UNIDO	Project Officer	Ethiopia
8	Mr. Tsegabu Tekla	UNIDO	Program Associate	Ethiopia
9	H.E. Mr. Abdullahi Godah Barre	Ministry of Environment and Climate Change, Federal Republic of Somalia	Principal Advisor to the Minister; Adaptation Fund NDA Representative	Somalia
10	Mr. Najib Abdi	UNIDO Somalia	Officer-in-Charge (o.i.c.) and National Project Coordinator	Somalia
11	Dr. Aynalem Haile	ICARDA (International Center for Agricultural Research in the Dry Areas)	Country Director, Ethiopia	International

Annex 6: List of participants of the stakeholders' validation workshop

Table 11: List of participants of stakeholder validation workshops held in Addis

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