Final Report

Terminal Evaluation of IWRM Project

Project Title: "Support for Integrated Water Resources Management to Ensure Water Access and Disaster Reduction for Somalia's Agro-Pastoralists"

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Mohamed Elmoge (NC) / Craig Naumann (IC)

List of Acronyms and Abbreviations

ASALs	Arid and Semi-Arid Lands
CBO	Community Based Organizations
CBWMC	Community Based Water Management Committees
CPD	Country Programme Document
EA	Executing Agency
FGD	Focus Group Discussion
GEF	Global Environment Facility
IA	Implementing Agency
IDI	In-depth Interviews
KII	Key Informant Interviews
KPI	Key Performance Indicator
LNOB	Leaving no-one behind
M&E	Monitoring and Evaluation
MoECC	Ministry of Environment and Climate Change
MoERD	Ministry of Environment and Rural Development
MoWRD	Ministry of Water Resources Development
NDP	National Development Plan
PENHA	Pastoral & Environmental Network in the Horn of Africa
PwD	Persons with Disabilities
NAPA	National Adaptation Plan of Action
NPD	National Project Director
OP	Office of Prime Minister
PIT	Project Implementation Team
SDGs	Sustainable Development Goals
TE	Terminal Evaluation
TOR	Terms of Reference
UNCF	United Nations Cooperation Framework
UNDP	United Nations Development Programme
USD	United States Dollars
WQ	Water Quality

Executive Summary

Project Description

PROJECT/OUTCOME INFORMATION	
Project title	Integrated Water Resource management Project (in Somali: Mashruuca Mareeynta Kheyraadka Biyaha)
Quantum ID	00112311
Corporate outcome and output	The project contributes to the UN Strategic Framework Priorities: • SP4: Social Development • OUTCOME 4.2. By 2025, the number of people impacted by climate change, natural disasters and environmental degradation reduced • OUTPUT 4.2 People Centred environment & climate smart strategies are put in place for sustainable natural resources management (NRM), including water, forests, rangelands, arable lands, and ocean fisheries
Country	Somalia
Region	Geographic zones for project implementation: Mogadishu, Jubaland, SW, Hirshabelle, Puntland, Galmudug
Project Duration in months	5 years including a 10-month no-cost period.
Date project document signed	23 July 2019
Project start and end dates	Start: 14 November 2019 Planned end: 30 September 2024
Project budget	USD 10,331,000 (GEF Trust Fund/LDCF: USD 8,831,000; UNDP TRAC: USD 1,500,000)
Project expenditure at the time of evaluation	USD 12,144,089.40 (GEF Trust Fund/LDCF: USD 7,240,172.21; UNDP TRAC: USD 4,903,917.19
Funding source	GEF-LDCF2 and UNDP TRAC resources
Implementing party	UNDP Government Counterparts: Ministry of Energy, and Water Resources (MoEWR- FGS), Ministry of Environment and Climate Change (MoECC-FGS), Ministry of Environment and Climate Change (MoECC-Puntland, Puntland Water Development Agency (PWDA), Ministry of Environment and Climate Change (MoECC-Somaliland, Ministry of Water Resources (MoWR), Somaliland and Pastoral and Environmental Network in the Horn of Africa (PENHA)/Somaliland
Main Beneficiary	Ministry of Energy, and Water Resources (MoEWR-FGS)

The Integrated Water Resource Management (IWRM) project in Somalia was designed to address the country's acute water scarcity, improve agricultural productivity, and enhance resilience to climate change. Funded by the Global Environment Facility (GEF) and implemented by UNDP, the project focused on empowering agro-pastoralist communities through sustainable water resource management. It involved the construction of climate-proof infrastructure such as dams, berkads (water reservoirs), and irrigation systems, while also rehabilitating degraded rangelands to restore grazing capacity.

A key feature of the project was its emphasis on community-driven approaches, forming water management committees that included significant participation of women and people with disabilities. This inclusive governance model empowered local communities to take ownership of the water infrastructure and resources, promoting sustainability and gender equality.

The project also played a pivotal role in state-building by facilitating coordination between federal and member state governments through joint platforms for water governance. It supported the establishment of the Ministry of Environment and Climate Change, providing technical assistance in the design of its strategic and operational frameworks, and improving Somalia's capacity for environmental governance. By addressing inter-clan conflicts over water resources and fostering cooperation among pastoralists, the project also contributed to peacebuilding in fragile regions.

Through these interventions, the IWRM project improved water access, increased agricultural productivity, and enhanced the resilience of local communities, while fostering institutional cooperation and sustainable resource management.

Evaluation Purpose and Objectives

The Terminal Evaluation (TE) of the Integrated Water Resources Management (IWRM) Project was conducted to assess its relevance, effectiveness, efficiency, impact, and sustainability. The evaluation aimed to provide evidence-based insights to improve future interventions, while identifying lessons learned and best practices. The primary audience includes the United Nations Development Programme (UNDP), the Global Environment Facility (GEF), the Somali government, and project stakeholders. The findings will guide decision-making, strategic planning, and replication efforts for future climate resilience and water management initiatives.

Evaluation Approach and Methods

The evaluation employed a mixed-methods approach, integrating qualitative and quantitative data collection tools. Key methods included a comprehensive desk review, stakeholder consultations through interviews and focus group discussions, and field visits. Statistical analysis and thematic coding were applied to ensure a robust examination of project outcomes and impacts. Gender-responsive and participatory approaches were emphasized to address cross-cutting issues like social inclusion and gender equality. Triangulation of data across multiple sources ensured the validity and reliability of findings.

The following table summarizes the ratings based on GEF's six-point scale and TE guidance standards:

Table 1: Evaluation Ratings Table, Criteria

Criterion	*Rating*	*Comments*
Relevance	Highly Satisfactory	Strong alignment with national priorities, agro-pastoralist needs, and climate resilience.
Effectiveness	Satisfactory	Significant progress toward objectives, including capacity building and institutional support.

Efficiency	Satisfactory	Timely resource use despite challenges such as COVID-19 and security constraints.
Sustainability	Moderately Likely	Institutional frameworks established, though financial and political risks remain.
Impact	Satisfactory	Improved water access, resilience, and agro-pastoralist livelihoods.
Overall Outcome	Satisfactory	Holistic success in fostering water resource governance and climate adaptation in Somalia.

Summary of Conclusions

The project achieved significant outcomes in building institutional capacities and promoting sustainable water governance, directly benefiting over 111,200 households. Notable achievements include the development of a gender-sensitive National IWRM Strategy, operationalization of water quality labs, and successful construction of climate-resilient water infrastructure. While progress in addressing systemic challenges was evident, sustaining these gains will require continued political and financial support.

Findings on Cross-Cutting Issues

Efforts to integrate cross-cutting issues were quite successful and even yielded some supplementary spin-off effects. In terms of gender equality, women played a critical role in water governance, with 30% of training participants and committee members being female. However, systematic tracking of gender-specific outcomes remains a gap. The socio-economic and local governance-related inclusion of marginalized groups, comprising persons with disabilities (PwDs), was prioritized but could benefit from further capacity-building initiatives. In terms of environmental sustainability, the construction of project infrastructure and policies promoted sustainable water use across all regions.

The standards applied for rating the project design features and performance are described in the following tabular overviews:

Table 2: Evaluation Ratings Table, Standards

Measure	MTR Rating
Project Strategy	N/A
Progress Towards Results	Objective Achievement Rating: (rate 6 pt. scale)
	Outcome 1 Achievement Rating: (rate 6 pt. scale)
	Outcome 2 Achievement Rating: (rate 6 pt. scale)
	Outcome 3 Achievement Rating: (rate 6 pt. scale)
Project Implementation & Adaptive Management	(rate 6 pt. scale)
Sustainability	(rate 4 pt. scale)

Table 3: Ratings for Progress Towards Results

one rating for each outcome and for the objective		
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

Table 4: Ratings for Sustainability

one overall rating		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

Actual ratings attributed, based on evidence-based evaluation findings, were as follows below (N.B.: ratings cover all dimensions and criteria which goes beyond the minimum requirements as defined by the ToR):

Table 5: Actual Ratings

Evaluation Criterion	**Rating**
Relevance	5
Coherence	4-5
Effectiveness	Satisfactory (5 of 6)
Progress towards objective and expected outcomes	Satisfactory (5 of 6)
Efficiency	Likely (4 of 4)
UNDP Implementation/ Oversight	Satisfactory (5)
Monitoring and Evaluation	Satisfactory (5 of 6)
Risk Management	Satisfactory (5 of 6)
Sustainability	Likely (4 of 4)
Impact	Likely (4 of 4)
Overall Outcome	Satisfactory (5 of 6)

These ratings reflect the project's strong performance across multiple areas, based on the overall effectiveness, efficiency, inclusion, and its long-term sustainability and impact on Somalia's water resource management and state-building efforts.

Concise summary of findings, conclusions and lessons learned

Relevance: The project aligned strongly with national priorities, particularly in addressing water scarcity and climate resilience for agro-pastoralists in Somalia. The development and endorsement of the National Water Resources Strategy (NWRS) for 2021–2025 was a major milestone, integrating customary water management practices with modern governance, ensuring decentralized water governance, and highlighting gender-sensitive approaches. Marginalized groups, especially nomadic pastoralists, were incorporated into the project's design, reflecting its focus on inclusivity and alignment with national development strategies, such as Somalia's National Development Plan (NDP-9). The project's relevance was further underscored by its focus on climate resilience and adaptation strategies, crucial for mitigating the impact of increasingly severe droughts and floods on vulnerable populations.

Effectiveness: Key achievements included, among others, a gender-sensitive National IWRM Strategy was successfully developed and approved. This strategy set clear priorities for water governance across Somalia and established a framework for sustainable water management. Also, the project's training components far surpassed the targets, with over 1,310 individuals (including 30% women) receiving training on IWRM principles, compared to an initial target of 150 decision makers. Women were trained to enhance their skills and knowledge in water management, fodder and milk production. This empowered them to take on leadership roles and effectively contribute to their respective community's economic growth. Community awareness campaigns were organized to highlight the importance of gender equality. These campaigns helped to change collective attitudes about gender roles and encourage the community to support women's empowerment and gender equality.

Policies promoting equality in water governance were adopted by regional and national governments thus creating an environment where women can actively participate and lead. The inclusion of women in water governance committees ensures their voices are heard in water use and management, and (at least potentially, in the future) also well beyond since it positions them in the sphere of community leadership and governance. The above demonstrates the project's significant reach in capacity building at multiple governance levels including building and enhancing women's leadership and managerial capabilities to strengthen their participation and active involvement in community development.

Water Quality Labs were established in five states, staffed by 25 technicians (30% of whom were women), fully equipped and operational. This contributed to improved water management across regions. Furthermore, a range of technological advancements were realized, including the installation of 13 Automatic Weather Stations (AWS), manual rain gauges, and groundwater sensors, enhancing the collection of hydrological data. Additionally, the National Hydro-Meteorological Service (NHMS) was established, becoming a fully operational service handling climate and weather forecasting. Livelihood diversification efforts were successful, with 40 climate-proofed water infrastructure projects equally distributed across different project regions and communities, benefiting over 111,200 households (52% of them women-headed). These interventions improved water access and supported agro-pastoralists' resilience to climate change impacts.

Efficiency: The project was implemented efficiently, despite the challenges posed by the COVID-19 pandemic and the fragile security context in southern Somalia. Budgetary constraints and global supply chain disruptions affected the pace of implementation, but adjustments were made, including the use of virtual tools to continue strategic processes such as developing the NWRS and managing stakeholder engagements. The project adhered to its financial plan, with actual expenditures amounting to USD 12,144,089.40, slightly exceeding the initial budget of USD 10,331,000. This was not due to blatant cost overruns or inflation.

Rather, the high number of indicator targets that were exceeded, sometimes spectacularly so, can be seen as an indication for the demand for, and traction of, the services and products proffered by the project. This in turn resulted in the ability to attract and absorb additional funds exceeding the initial budget by 17.5%. Efficiency was also reflected in the cost-effective use of existing resources, with a strong co-

financing component reaching almost seven times the original budget. Absorption rates for 2022 and 2023 were inbetween the low and high ends, at 67% (year 2022) and 76% (2023). While total absorption for the entire project was 83%, annual rates for 2021 (92%), 2023 (86%), and 2024 (89%) were higher than the total average.

Impact: The project had a considerable impact on improving water access and climate resilience. In Somaliland and Puntland, optimized water harvesting infrastructures benefited 111,200 households and contributed to the rehabilitation of 6,285 hectares of rangelands, thereby enhancing the resilience of over 50,000 households. This impact was particularly significant for women-headed households (42% of the total), who played an active role in managing water resources. The project also had a positive effect on food security through the introduction of water infrastructures that supported agricultural productivity. Early warning systems for droughts and floods were another area of success, with more than 525,000 people (52% of whom were women) benefiting from alerts, enhancing their ability to prepare for and respond to climate-related risks.

Sustainability: The project's sustainability prospects are promising, largely due to the establishment of long-term systems and institutional capacities. The NHMS and WQ labs provide crucial infrastructure for ongoing water management, and their sustainability is supported by the training provided to local technicians. However, ongoing support for operations and maintenance, as well as securing political and institutional ownership at the regional and community levels, will be essential for ensuring that these gains are maintained. The project's approach of building local governance structures, such as water management committees, also enhances the likelihood of sustained benefits, as these structures empower communities to take ownership of water management.

Coherence: The project aligned with and contributed to Somalia's broader development frameworks, including the United Nations Strategic Framework (UNSF), the NDP-9, and the Sustainable Development Goals (SDGs). It supported climate resilience initiatives within the Somali government's agenda and promoted collaboration among multiple stakeholders, including international and regional bodies. The project's integration with existing national policies, such as the NWRS and early warning systems, and its focus on gender-sensitive and inclusive approaches, further solidified its coherence with national and international development goals.

Lessons Learned: Community involvement. was key to the project's success, particularly in ensuring the sustainability of interventions. The inclusion of women and marginalized groups in water management committees demonstrated the value of a participatory approach in building local ownership and resilience. Technology transfer and capacity building were central to the project's achievements. The training of more than 1,300 people on water management and climate adaptation technologies ensured that local institutions were well-equipped to sustain the project's outcomes. The project demonstrated a strong ability to adapt to external challenges, such as the COVID-19 pandemic and political instability, through flexible management approaches, including virtual engagements and partnerships with local institutions. These adaptive strategies helped mitigate delays and ensured that the project stayed on course to meet its objectives.

Recommendations summary table

Per outcome area (for Outcomes 1-3, each has a module, hence in total Modules A-C; plus a fourth module (Module D) for applied research studies and a fifth one (Module E) for overarching concerns), a total of 14 key recommendations is submitted.

- *Module A – Policy component (Component 1: National Integrated Water Resource Management Strategy and capacity building for national, sub-national, district and community level actions)*

-Rec. 1. Commission a feasibility study to look into suitable geographic areas and the objective demand and need for follow-up scaling of the IWRM approach, possibly through a triple nexus portfolio consisting of customized follow-up projects, by employing an area-based/regional approach, to expand and replicate

lessons learned and best practices from the IWRM project, across federal States, all relevant sectors and related UN portfolios (Addressees: Relevant UNDP-Federal and Central Government entities (MoEWR, MoA, MoEnv/CC); Degree of Urgency: High; Timeline: short term/immediately)

-Rec. 2. Continue efforts to establish cross-border river management authorities in view of introducing cooperation and coordination for joint river management of the Shebelle and Juba rivers, with adjacent countries Ethiopia and Kenya, to promote sustainable water development (Addressees: UNDP, UN Mission, Federal Government; Degree of Urgency: High; Timeline: sustained/mid- to long-term)

- *Module B – Technology Transfer component (Component 2: Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood prone areas)*

-Rec. 3. Launch an applied research study to assess the feasibility of introducing community level monitoring including such features as i. institutional linkage with regional water governance structures to connect community data collection with national MIS systems; ii. dissemination of, and training on use of, DRM/CC and water testing technology to help in collecting continuous real-time, ground level data on climate and environmental phenomena including droughts and floods (water levels, temperature/humidity, soil moisture, presence of flora and fauna etc.); and iii. water quality testing to complement the limited number of official water laboratories (also address WASH-related health concerns via UNICEF/WHO). (Addressees: UNDP, IPs, Regional Member States' respective counterpart institutions; Degree of urgency: Medium; Timeline: short- to mid-term)

-Rec. 4. Linked to above recommendation, open related TVET/academic pathways for best performers through scholarships to enhance local level data collection and ensure that the use of technologies and data is tailored to local needs and conditions in the interest of promoting project sustainability, community resilience and awareness. (Addressees: UNDP, IPs, TVET institutions; Degree of priority: Medium; Timeline: mid-term)

- *Module C – Livelihoods component / agropastoral support (Component 3: Improved water management and livelihood diversification for agro-pastoralists)*

-Rec. 5. Ensure continuous follow-up at community level in project sites via IPs in terms of
a) organizing refresher trainings (including virtual/hybrid formats) to ensure sustainability and collect related impact level data (food security situation, conflict management within and between villages/pastoral clans etc.);
b) forming a pool of regional/national IWRM champions as master trainers selected among the most capable individuals at water committee level in supported villages (these individuals could be used to propagate the approach during a scale-up/expansion phase; transport/emoluments/incentives to be provided);
c) setting up a virtual community of practice by linking up water committees, solar equipment experts, fodder producers etc.
(a.-c. / Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority: Medium; Timeline: Mid-term)

-Rec. 6. Consider follow-up action via, or in the form of a JP together with, UNICEF and/or ILO possibly through collaboration with TVETs, to establish water pipes linking water basins with households, focusing on WASH and horticultural usage of water resources at household level.
(Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority: Medium; Timeline: Mid-term)

-Rec. 7. Address existing needs for solar technology expertise: invest into TVET solar training to build local capacity regarding solar power installation, maintenance, repairing (for water pumps, roof top solar for power etc. (programme implication: TVET, local economic businesses/SMEs)

(Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority/urgency: Medium; Timeline: short to mid-term)

- *Module D - KM Tier (AWP Outcome Area 4)*

-Rec. 8. Launch a set of Studies (Addressees: UNDP, federal & regional ministries; Degree of priority: medium; timeline: medium to long term)

a. Tier 1: Pilot studies
    i. Iterative mini-ranch approach for rangeland rehabilitation
    ii. Pilot biogas approach
    iii. Pilot cooperative approach
b. Tier 2: Feasibility studies
    i. Pilot camel hair textile
    ii. Waste water recycling
    iii. Drip technology for greenhouses/horticulture
    iv. Unless already done during original feasibility study, look into possibility of karez/turpan/qanat system or adding complementary well boring to address phases of lack of water due to drought
c. Tier 3: Tracer/KAP/survey approach re impact level effects (linked to M&E and long term/impact level indicator design)
    i. Local SDG effects on institution building and interclan peace/stabilization
    ii. Copy-cat dynamics (who-why-how etc.):
    iii. IWRM as pull factor (migration)
    iv. SDG study on food security effects
    v. SDG16
    vi. SGBV
    vii. GEWE

- *Module E – Overarching Issues*

In terms of overarching challenges, related recommendations on how to address them (Addressees: lead ministries, UNDP; priority: high; timeline: medium to long term) would be:

-Rec. 9. Strengthen Security and Risk Mitigation Measures through the development of flexible implementation plans that incorporate contingency measures for operating in high-risk areas.
Rec. 10. Improve Financial Planning and Oversight, including the allocation of contingency funds in future projects to manage unforeseen costs and establish stricter budgetary controls to prevent overruns.

-Rec. 11. Enhance Staff Retention Strategies, for instance through implementing competitive compensation and professional development programs to reduce turnover and retain skilled personnel.

-Rec. 12. Invest in Data Systems, e.g., in view of strengthening baseline studies, data collection and management systems, particularly for monitoring cross-cutting issues such as gender equality and inclusion.

-Rec. 13. Address Cultural Barriers by expanding community sensitization programs and engaging local leaders to advocate for the participation of women and marginalized groups.

-Rec. 14. Ensure Sustainability and Replication by developing comprehensive replication and sustainability plans with defined roles, resources, and timelines, supported by ongoing stakeholder engagement and capacity building.

As to cross-cutting issues, related suggestions are mainstreamed across the recommendations listed above. In addition, to boost cross-cutting concerns, introducing a comprehensive gender action plan with clear,

measurable indicators to enhance systematic monitoring of gender-related outcomes might be worth considering. Likewise, to boost social inclusion, targeting mechanisms to incorporate marginalized populations might need to be expanded, coupled with additional training and resource allocation. Environmentally sustainable practices across project activities could be further deepened to ensure consistent implementation through training and policy alignment.

1. Introduction

1.1 Purpose and objective of the TE

The purpose and primary objective of this Terminal Evaluation (TE) is to assess the overall performance of the "Support for Integrated Water Resources Management (IWRM) to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists" project. The evaluation is designed to provide a comprehensive analysis of the project's relevance, effectiveness, efficiency, impact, and sustainability, focusing on the extent to which the project has achieved its intended outcomes and objectives. Specifically, the evaluation aims to:

- Gauge contextual relevance: Assess specific political and security challenges in Somalia, including challenges faced in collecting data and evaluating the adaptability of the IWRM project to the local community.
- Measure project relevance: Determine the relevance of the project's objectives in the context of Somalia's environmental and socio-economic challenges, as well as its alignment with the Global Environment Facility (GEF) focal areas, Somalia's national development priorities, and the Sustainable Development Goals (SDGs).
- Assess effectiveness: Identify the extent to which the project's goals were progressed against and achieved as per the final outcome and output indicator targets set in the Logical and Results Frameworks.
- Evaluate efficiency: Analyze the efficiency of the project's implementation, focusing on the use of financial, human, and material resources. This includes assessing whether resources were utilized in a cost-effective manner and if the project adapted effectively to changing conditions, such as the COVID-19 pandemic and the evolving security situation in Somalia.
- Examine sustainability: Assess the sustainability of the project's outcomes, particularly the likelihood that the benefits achieved during the project's implementation will continue after the project's conclusion. This involves evaluating the institutional, financial, and socio-political frameworks established to support the continuation of project activities.
- Assess the project's integration of cross-cutting issues, particularly gender equality, social inclusion, and the principle of "Leaving No One Behind" (LNOB): This includes examining how the project addressed the needs of marginalized and vulnerable groups such as women, persons with disabilities (PwDs), and nomadic pastoralists in its design, implementation, and outcomes. This aims to identify successes and gaps in these areas, ensuring that lessons learned can enhance the inclusivity and equity of future interventions.
- Identify lessons learned and best practices: Draw lessons from the project's design and implementation that can inform future interventions in similar contexts. This includes identifying best practices, challenges, and opportunities that can enhance the effectiveness of future projects in integrated water resources management and climate resilience.
- Promote accountability and transparency: Ensure that the project's achievements and shortcomings are transparently documented and shared with stakeholders, including donors, government agencies, and project beneficiaries. This will aid in promoting accountability and enhancing the credibility of the UNDP and GEF's efforts in Somalia.
- Contribute to future programming: Provide recommendations that can guide the design and implementation of future UNDP and GEF interventions in Somalia and other fragile states. These recommendations will be based on the evaluation's findings and are intended to improve the sustainability and impact of future projects.

Evaluation Users and intended Uses

The findings of the TE are intended to serve a wide range of stakeholders, including:

- Primary Users:
    - UNDP and GEF: To assess the impact of the project and guide the design of similar future initiatives focusing on climate resilience, sustainable water resource management, and cross-cutting inclusivity.
    - Somali Government Ministries and Agencies: To refine national policies and programs, particularly in integrated water resource management, climate adaptation, and social inclusion.
    - Implementing Partners and Community-Based Organizations (CBOs): To leverage evaluation insights for improving implementation strategies and ensuring the sustainability of outcomes at the local level.
- Secondary Users:
    - Donors: To evaluate the effectiveness of resource utilization and strengthen accountability mechanisms.
    - Researchers and Development Practitioners: To draw lessons from the project as a case study for integrated water management in fragile contexts.
    - Local Communities: To foster understanding of project impacts and promote community ownership and sustainability of results.

The evaluation findings will be used to:

1. Inform decision-making and strategic planning for future IWRM projects.
2. Strengthen gender-responsive and inclusive program design, ensuring alignment with LNOB principles.
3. Enhance institutional learning for UNDP, GEF, and government agencies.
4. Contribute to policy advocacy by highlighting effective practices and addressing gaps in water resource governance.
5. Provide an evidence base for scaling up or replicating successful interventions in other regions facing similar challenges.

1.2 Evaluation Scope

The scope of this Terminal Evaluation encompassed all aspects of the "Support for Integrated Water Resources Management (IWRM) to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists" project. The evaluation covered the entire duration of the project from its inception on 23 July 2019 to its planned conclusion on 30 September 2024. The evaluation assessed the project's performance across the following key dimensions:

- Geographical Coverage: The evaluation included an assessment of project activities selected from among project regions in Somalia, namely Mogadishu, Somaliland, Southwest, Puntland, and Galmudug. These regions represent diverse environmental, socio-economic, and security conditions, and the evaluation will examine how the project adapted its strategies to these varying contexts.

- Project Components: The evaluation addressed each of the three strategically linked components of the project:
    - Component 1: National Water Resource Management Policy - Assessing the development and implementation of a robust policy framework for integrated water resource management at both national and state levels.
    - Component 2: Technology Transfer for Climate Risk Monitoring - Evaluating the expansion and effectiveness of hydro-geo-meteorological monitoring networks and the capacity-building efforts aimed at improving climate risk monitoring.

- Component 3: Improved Water Management for Agro-Pastoralists - Analyzing the project's impact on enhancing water management practices and livelihood diversification for agro-pastoralist communities.

- Evaluation Criteria: The evaluation was conducted in line with the standard GEF evaluation criteria. These criteria were prioritized to ensure alignment with GEF requirements, assess the performance and impact of project contributions to national priorities, and ensure that GEF projects deliver meaningful and lasting environmental benefits. The evaluation criteria appliedin the evaluation's analysis included:
  - Relevance/Coherence: The alignment of the project's objectives with national priorities, GEF focal areas, and the needs of target beneficiaries.
  - Effectiveness: The extent to which the project achieved its expected outcomes and objectives.
  - Efficiency: The optimal use of project resources and the effectiveness of adaptive management strategies.
  - Sustainability: The likelihood of continued benefits after project completion, including institutional, financial, and socio-political sustainability.
  - Impact: The broader effects of the project on the environment, socio-economic conditions, and institutional capacity in Somalia.

- Cross-Cutting Issues: The evaluation incorporated an analysis of key cross-cutting issues, including;
  - Gender Equality and Women's Empowerment: Assessing the project's contribution to gender equality, including the involvement of women in water resource management and decision-making processes.
  - Disability Inclusion: Evaluating the extent to which the project included and benefited individuals with disabilities.
  - Human Rights: Considering how the project addressed issues of human rights in its design and implementation.
  - Environmental Safeguards: Reviewing the project's compliance with environmental safeguards and its impact on environmental sustainability.

As seen above, the evaluation assessed the "Support for Integrated Water Resources Management (IWRM)" project's performance on the ground across five of the project's total of seven geographic focus areas. These regions represent diverse environmental, socio-economic, and security conditions, with significant variations in the vulnerabilities of local populations. The project targeted several vulnerable groups across the selected regions, ensuring alignment with the principle of "Leaving No One Behind" (LNOB). These groups included:

- Agro-Pastoralist Communities: These communities, reliant on subsistence farming and livestock, faced acute challenges from recurrent droughts, erratic rainfall, and degraded rangelands. The project addressed their vulnerability to food insecurity, loss of livelihoods, and limited access to sustainable water resources.
- Nomadic Pastoralists: Nomadic groups, often marginalized due to their migratory lifestyles, were supported through interventions to rehabilitate rangelands and improve water access points critical for livestock.
- Women and Female-Headed Households: Women, particularly those heading households, were prioritized due to their disproportionate burden in securing water and the socio-cultural barriers limiting their decision-making power in resource governance. The project empowered them by ensuring representation in water management committees and providing capacity-building opportunities.
- Persons with Disabilities (PwDs): The project aimed to address the unique challenges faced by PwDs by incorporating accessibility considerations into water infrastructure designs and actively involving them in community-level decision-making processes.

- Youth and Disadvantaged Groups: In a context of high unemployment, youth and other socially disadvantaged groups were engaged through livelihood diversification activities, technical training, and roles in water management initiatives.
- Internally Displaced Persons (IDPs): Many project sites were adjacent to or included IDP settlements, where displaced populations grappled with heightened vulnerability to water scarcity and environmental shocks. These communities benefited from water infrastructure improvements and capacity-building efforts to enhance resilience.

The evaluation analyzed how these vulnerable groups were included in project activities, assessed their access to project benefits, and examined the sustainability of outcomes for these populations. By doing so, the evaluation provided insights into the project's alignment with LNOB principles and its contribution to addressing the root causes of marginalization in the target locations.

1.3 Methodology

The methodology was designed to ensure that the evaluation would be comprehensive, inclusive, and aligned with the UNDP and Global Environment Facility (GEF) evaluation policies. The TE aims to assess the project's relevance, effectiveness, efficiency, impact, and sustainability, incorporating gender-responsive and human rights-based approaches.

Overall Evaluative Approach

The evaluation employed multiple complementary approaches to address its objectives and answer the evaluation questions comprehensively:

1. Results-Based Approach: Assessed the project's achievements against its logical framework, focusing on progress toward intended outcomes and outputs.
2. Theory of Change Approach: Examined the causal pathways outlined in the project's Theory of Change to assess the validity of assumptions and identify contributing or hindering factors.
3. Utilization-Focused Approach: Ensured the evaluation findings were actionable by emphasizing practical recommendations aligned with stakeholder needs.
4. Participatory Approach: Actively engaged beneficiaries, government stakeholders, and implementing partners throughout the evaluation to capture diverse perspectives and build ownership of findings.
5. Human Rights-Based Approach: Evaluated the extent to which the project upheld and advanced human rights, particularly for vulnerable groups, aligning with international standards.

Evaluation Framework and Methodological Approach
The evaluation framework was structured around the key criteria set forth in the Terms of Reference (ToR), including relevance, effectiveness, efficiency, sustainability, coordination, and gender equality. The evaluation also considered the impact of the project in terms of its contribution to the UN Strategic Framework, the Sustainable Development Goals (SDGs), and national priorities in Somalia. This framework provides the basis for the development of specific evaluation questions and the selection of appropriate data collection and analysis methods.

The methodological approach for this evaluation was participatory, mixed-methods, and evidence-based. It includes both qualitative and quantitative methods to ensure a robust analysis of the project's outcomes and impacts. The approach also incorporated adaptive strategies to address potential challenges, such as security concerns and data accessibility. The evaluation process was designed to be inclusive, engaging a wide range of stakeholders, including government counterparts, project beneficiaries, UNDP staff, and other development partners. Stakeholder involvement was critical to ensure that the evaluation captures diverse perspectives and provides actionable insights. Key methods for stakeholder engagement included structured interviews, focus group discussions, and participatory workshops.

The evaluation employed a mixed-methods design, integrating qualitative and quantitative data by systematically converging themes where qualitative and quantitative data agree; for example, FGDs findings revealing a high level of satisfaction while relevant quantitative data showed improved outcomes. We also used qualitative data to explain other findings. For example, FGDs provided further insights by adding valuable information. This improved the reliability of the findings allowing to provide a comprehensive assessment of the project. The tool set of methods of data collection to provide the material for subsequent heuristical analysis included:

- Qualitative methods like in-depth interviews with key informants, focus group discussions with project beneficiaries, and participatory observations during field visits. These methods aimed to capture the contextual factors influencing project outcomes, stakeholder perceptions, and the project's contributions to gender equality and women's empowerment.
- Quantitative methods involving the analysis of project performance indicators, financial data, and other relevant metrics. Data collected on beneficiary outcomes and the efficiency of project implementation underwent statistical analysis to quantify the project's impacts and assess the correlation between project activities and observed outcomes.

Methodological Approach to Cross-Cutting Issues

To effectively evaluate cross-cutting issues, the evaluation adopted a mixed-methods approach that combined qualitative and quantitative data collection and analysis. This approach included:
- Stakeholder Consultations: Engaging a diverse range of stakeholders, including women, individuals with disabilities, human rights advocates, and environmental experts, to gather insights and perspectives on how well the project addressed these cross-cutting issues.
- Document Review: Analyzing project documents, reports, and data to assess the integration of cross-cutting issues into the project's design, implementation, and monitoring frameworks.
- Field Visits and Case Studies: Conducting field visits and case studies to observe the implementation of project activities and gather evidence on the impact of the project on cross-cutting issues. This will include interviews with beneficiaries and community members to understand their experiences and perspectives.
- Gender-Responsive and Inclusive Evaluation Tools: Utilizing gender-responsive and inclusive evaluation tools to ensure that the voices of all stakeholders, particularly those from marginalized and vulnerable groups, were heard and considered in the evaluation process. These tools included:

1. Stakeholder Mapping: A gender- and inclusion-sensitive stakeholder mapping identified key informants from marginalized groups, such as women, persons with disabilities (PwDs), and internally displaced persons (IDPs), to ensure diverse perspectives were captured.

2. Gender-Disaggregated Surveys: Quantitative surveys were designed to collect sex- and age-disaggregated data, enabling an analysis of differential impacts on men, women, and other vulnerable groups.

3. Focused Group Discussions (FGDs): FGDs were conducted separately for women, PwDs, and youth to create safe spaces for discussion. Questions were tailored to uncover gender dynamics, barriers to participation, and impacts on inclusion.

4. Key Informant Interviews (KIIs): Semi-structured interviews included specific questions on gender equality and social inclusion to assess the project's alignment with LNOB principles.

5. Accessibility Considerations: For PwDs, the evaluation incorporated tools such as visual aids, simple language questionnaires, and adapted venues for in-person interviews to ensure inclusivity.

Detailed methodologies addressing cross-cutting issues are provided in Annex 5.8.

Purposive Sampling Rationale and final Sample of Project Areas covered by TE

The IWRM Project comprised various project sites across different regions. However, given the constraints of time, budget, and security, it was not feasible to visit every location. Instead, the evaluation team adopted a purposive sampling approach, selecting specific sites among the project areas listed in the ToR for an in-depth evaluation. The selected areas included, Mogadishu – National government, Hargeisa – Somaliland, and Garowe – Puntland state. State authorities in the regions of Galmudug, Hirshabelle and Jubaland were interviewed, on a remote basis. The map in Annex 5.7 shows the location of the sites covered during the TE, through field level or remote data collection. On-site visits included field level site visits for inspection and verification purposes, in-depth key informant interviews and focus group discussions with end level beneficiaries, institutional representatives etc.).

The purposive sampling approach was employed to ensure representation from diverse stakeholder groups and regions, given the project's scope and focus on marginalized communities.

1. Criteria for Selection:

o Geographical Diversity: Sampling included regions with varied environmental, socio-economic, and governance contexts.

o Demographic Representation: Key populations included women, PwDs, youth, IDPs, and agro-pastoralist households, prioritizing groups most affected by water scarcity and climate impacts.

o Project Involvement: Participants were selected based on their involvement in or benefit from specific project components, such as water management committees or training sessions.

2. Sampling for FGDs and KIIs:

o Purposive Sampling: FGDs and KIIs targeted beneficiaries based on their roles in water governance (e.g., committee members), socio-economic status, and accessibility, ensuring inclusion of marginalized voices.

4. Community Beneficiary Sampling:

o Combination of Random and Purposive Sampling: For community-level beneficiaries, random sampling was employed within purposively selected project sites to balance representativeness and practical feasibility.

Constraints Influencing Location Selection

The rationale behind selecting only a sub-set for on-site visits rather than traveling to all locations mentioned in the ToR, consisted of various factors (time constraints/accessibility, security concerns etc.):

-Time Constraints: The TE was scheduled to be completed within a limited timeframe of approximately one month. This period included all phases of the evaluation process, from inception to the submission of the final report. Visiting every site listed in the ToR would have required extensive travel across Somalia, which would not have been achievable within the given timeframe. By focusing on a smaller number of strategically chosen locations, the evaluation team still managed to conduct a thorough analysis and thus avoided to compromise the quality of the evaluation.

-Representation of Diverse Contexts: The selected locations—Mogadishu, Baidoa, Garowe, Hargeisa etc.—represent a diverse cross-section of Somalia's geographical, cultural, and political contexts. This diversity was essential for understanding how the IWRM project was implemented across different regions and how various environmental and socio-political factors influenced project outcomes.

-Security Concerns: Somalia's security situation varies across different regions, with some areas being more volatile than others. The safety of the evaluation team was paramount, and certain locations listed in the ToR posed significant risks. The selected locations for on-site visits were considered relatively safer and more accessible, allowing the evaluation to proceed without exposing team members to unnecessary danger. It is worthwhile mentioning that only the national consultant traveled to the project sites, whereas the international expert was home-based and conducted interviews, remotely.

-Strategic Importance of Selected Locations: The locations included in the timeline schedule were chosen based on their strategic importance to the IWRM project. These sites were critical for several reasons:

-Concentration of Key Project Activities: The chosen sites were those where the majority of the project's key activities and interventions took place. These locations included major project outputs, such as water infrastructure developments, capacity-building initiatives, and community engagement efforts. Evaluating these sites provides a comprehensive overview of the project's impact and effectiveness.

-Stakeholder Accessibility: In the selected locations, key stakeholders, including government officials, project beneficiaries, and UNDP staff, were more readily accessible for interviews and consultations. This accessibility ensured that the evaluation team could gather detailed insights and feedback directly from those involved in or affected by the project.

Limitations of Not Visiting All Locations

While the selected locations provided a strong basis for evaluation, it is important to acknowledge the limitations of not having been able to visit all sites listed in the ToR. Some areas may have unique challenges or successes that could not be directly observed. However, the evaluation team strove to mitigate such limitations by:

- Conducting Virtual Interviews: For locations not visited, virtual interviews were conducted with stakeholders to capture their perspectives.
- Using Secondary Data: The team reviewed documentation and reports from these unvisited sites to incorporate their experiences and outcomes into the evaluation.
- Triangulation: Cross-referencing data from different sources helped ensure that the evaluation findings are comprehensive and accurate.

1.4 Data Collection & Analysis

The evaluation involved consultations with a broad range of stakeholders, including government counterparts, UNDP staff, project beneficiaries, and civil society organizations. Stakeholder engagement ensured that the evaluation captured diverse perspectives and provides a comprehensive assessment of the project's outcomes.

The evaluation employed a combination of qualitative and quantitative data collection methods. The review of key technical literature such as plans and reports, provided a historical and administrative perspective as well as performance data, while in-depth interviews with key informants and focus group discussions with stakeholders allowed to garner insights through the analysis of qualitative data. Data cross-checking, cross-validation and complementary data integration helped to validate and contextualize data across methodological data collection approaches and tools and various data sources. Moreover, it allowed to capture the perspectives of those involved in the project's design, implementation, and oversight.

This was achieved by, e.g., comparing findings from the document review and data from beneficiary interviews (example: while the reviewed documents might have allowed to identify a drop in female participation rates, beneficiary interviews might have explained the reasons behind this trend). Analyzing data from different sources allowed to compare, validate and finetune findings and conclusions, thereby leading to an in-depth understanding of the project impact. The methodology was gender-responsive and aimed to ensure that all relevant cross-cutting issues are adequately addressed.

The evaluation was scheduled to take place over a period of approximately three months, with field missions and stakeholder consultations conducted within the first five weeks. The final evaluation report,

including findings, conclusions, recommendations, and lessons learned, was submitted in the second half of October 2024.

Data Collection Tools

A comprehensive document review of project documents, including the Project Document, Annual Progress Reports, Mid-Term Review, and financial statements, was conducted. This provided baseline data and helped track progress against the Logical Framework. In addition, the TE looked at the UNCF and UNDP Country Programme Document, Project Work Plans, Project Annual Reports, relevant technical studies and publications, M&E plans and reports, project board meeting minutes, project financial statements and audit reports, national and state level strategic and legal documentation, workshop, training event and field visit reports, and secondary sources and national statistics and online resources. In addition, the following data collection tools were employed:

- Key Informant Interviews (KIIs): Semi-structured interviews with stakeholders such as government officials, UNDP staff, and community leaders were conducted to gather qualitative data on project implementation, outcomes, and challenges. The data from these different stakeholder groups were categorized and analyzed by combining key issues to identify patterns based on commonalities, similarities, overlaps etc. but also discrepancies or differences. This then served to create an evidence-based narrative that integrates the feedback from all stakeholder groups by use of thematic analysis, thus providing a comprehensive overview of the project's performance and impact. For example, government officials provided policy alignment and compliance while community leaders provided feedback on how well the project aligned with the community needs and cultural practices.

- Focus Group Discussions (FGDs): FGDs were organized with project beneficiaries, particularly agro-pastoralists, to gather insights on the project's impact on their livelihoods, water access, and disaster resilience.
- Surveys and Questionnaires: Structured surveys were administered to a representative sample of beneficiaries to collect quantitative data on project outcomes, including changes in water management practices and access to resources.
- Field Observations: Direct observations were conducted during site visits to assess the physical outputs of the project, such as infrastructure development, and to verify the self-reported data from interviews and surveys.

Data Analysis Methods
Data analysis was conducted using a combination of thematic analysis for qualitative data and statistical analysis for quantitative data:
- Thematic Analysis: This was used to analyze qualitative data from interviews, FGDs, and open-ended survey responses. Thematic coding was used in order to identify patterns and themes related to project relevance, effectiveness, and sustainability. By identifying these themes clearly, stakeholders can better understand how specific trends, challenges and opportunities including but not limited to cross-cutting issues like gender and disability inclusion, were pinned down, and how this culminated in related conclusions and evidence-based recommendations.

- Statistical Analysis: Descriptive statistics was used to summarize survey data and explore relationships between project interventions and observed outcomes.
- Triangulation: Multiple data sources and methods were triangulated to ensure the reliability and validity of the evaluation findings. This process involved cross-verifying information obtained from different stakeholders, data collection methods, and documentation to identify consistencies and discrepancies.

Evaluation Team and Roles

The evaluation was conducted by a team of two independent evaluators—a Team Leader with international as well as Somalia-specific programme design, strategic planning and M&E experience as well

as specialized exposure to triple nexus and water resource management issues; and a local Environmental Management Expert with in-depth knowledge of Somalia's local context. The Team Leader oversaw the overall evaluation process, including methodology design, data analysis, and report writing, whereas the national consultant conducted field level interviews, supported the coordination with local stakeholders, and provided insights into the socio-political and environmental context of the project.—The Evaluation Team comprised of Dr. Craig Cordell Naumann as the International Consultant/Team Leader and Mr. Mohamed Elmoge Sheikh as the National Consultant in Somalia. A detailed overview of respective tasks can be found in Annex 5.10.

Reporting and Dissemination

The findings from the evaluation were compiled into a comprehensive Terminal Evaluation Report, which included an executive summary, detailed analysis of project performance, lessons learned, and practical recommendations. The draft report was reviewed by UNDP, GEF, and key stakeholders to ensure it would be meeting required standards and addresses all relevant aspects of the project. An audit trail accompanies the final draft version prepared for dissemination.

1.5 Ethical Considerations

Throughout the various stages of the evaluation, from design to data collection to analysis and interpretation, the evaluation adhered to the highest ethical standards, ensuring confidentiality, informed consent, and respect for the rights of all participants. Evaluators will avoid any conflicts of interest and ensured that the evaluation process is transparent and accountable. The evaluation followed the UNEG Ethical Guidelines for Evaluation, emphasizing the importance of safeguarding the privacy and security of stakeholders involved in the evaluation.

1.6 Limitations to the TE and related Mitigation Strategies

Several potential limitations were identified, including security concerns, accessibility of remote areas, and potential biases in self-reported data. To mitigate these challenges, the following measures were employed:
- Security and Accessibility: The evaluation team used virtual tools such as Zoom and Skype for interviews in areas that are difficult to access due to security concerns. The involvement of local experts also helped navigate logistical challenges.
- Data Bias: The use of multiple data collection methods and triangulation helped mitigate the risk of biases in self-reported data. The evaluators also ensured that questions are neutrally phrased to avoid leading respondents.
- Time Constraints: The evaluation schedule was designed to allow sufficient time for data collection, analysis, and reporting. However, flexibility was built into the schedule to accommodate any unforeseen delays.

1.7 Structure of the TE report

The report follows the standard structure for GEF project terminal evaluation reports. It starts with an executive summary which is followed by the main narrative part of the report, with a subsequent section dedicated to technical annexures. In the actual main body of the report, after a brief introduction, the project's key design features are described. Thereafter follows the report's main section which is dedicated to the terminal evaluative findings concerning the project design's structural logic, the implementation modalities and processes, project results per evaluation criterion. The analysis concludes with a section on conclusions, lessons and recommendations.

2. Project Description

2.1 Project Overview

The "Support for Integrated Water Resources Management (IWRM) to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists" project is a crucial initiative aimed at addressing the pressing challenges of water scarcity and climate-induced disasters in Somalia. The current drought in Somalia is the longest in at least 40 years, driving widespread displacement and food insecurity. The project, initiated on 23 July 2019 and slated to conclude by 30 September 2024, was developed in response to the growing need for sustainable water management strategies in a country severely impacted by recurrent droughts, floods, and prolonged civil unrest. Just as an example of the dimensions of water scarcity in the country: According to data released by OCHA, the number of people affected by drought more than doubled in the year 2022 from less than 4 million people to almost 8 million by the end of the year, representing 46 percent of the country's population.

With a budget of USD 10,331,000, co-funded by the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), the project spans across key regions in Somalia, including Mogadishu, Jubaland, Southwest, Hirshabelle, Puntland, and Galmudug. The project not only contributed to Somalia's National Development Plan and the Sustainable Development Goals (specifically, SDG 6 for Water and Sanitation, SDG 13 for climate action, SDG 15 for biodiversity through rangeland conservation, but also many others including SDG 16 given the links to good governance and peace, SDG 5 for the promotion of gender equality and women's empowerment, SDG 1 aiming to end poverty in all its forms, SDG 2 which is about food security and zero hunger etc.) but also aligned with the broader UN strategic framework for climate resilience and sustainable development in fragile states. Other than policy and capacity development support for overall IWRM purposes including DRM/DRR, the project also set out to provide a proof-of-concept by introducing a model for controlling and harnessing water and turning it from a destructive force into an asset for agropastoral productivity, and more (including WASH etc.).

The inputs and related processes consisted of a complementary mix of hard and soft components at community level. Whereas hard components comprised water infrastructure including berkads, canals and pools; but also baling devices, storage hangars etc., the soft components focused on setting up water management committees, training its members (on maintenance, operating and overseeing water control and usage-related operations) through capacity development interventions, and general sensitization/communication measures to build trust and support for the project by informing them about benefits and opportunities, and related training interventions (for dairy chain, fodder production etc.) targeting the communities.

2.2. Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope

The project was designed to address a number of problems, threats and barriers. It targeted interrelated environmental and socio-economic challenges related to the need to introduce a scalable blueprint, or proof-of-concept, for integrated water resource management.

Implementation Challenges

The implementation of the IWRM project faced several challenges, including the impact of the COVID-19 pandemic, which hindered community engagement and delayed civil works due to budget constraints and global supply chain disruptions. Additionally, the fragile security situation in southern and central Somalia, coupled with an extended federal election process, has further delayed project activities.

Despite these challenges, the project made significant strides in improving water governance, enhancing the technical capacity of institutions, and building the resilience of agro-pastoralist communities. The lessons learned from these challenges and successes will be critical in guiding future interventions in Somalia and similar contexts.

Somalia's Environmental and Socio-Economic Challenges

Somalia faces significant environmental challenges exacerbated by climate change, including frequent droughts, erratic rainfall patterns, and severe flooding. Somalia has figured among the countries worst affected by droughts and water scarcity in recent years. In 2024, it was listed as the most affected by drought in the entire world with a score of 9.9 out of a maximum of 10 for the highest risk, according to the official drought risk index which serves as comparative measure.[1] According to statistics published by reliefweb[2] the past decade has been marked by drought, food insecurity and the constant threat of famine.

This unprecedented level of need within Somalia is driven by the impacts of consecutive seasons of poor rainfall since 2018, resulting in food scarcity, reliance on food imports to stave off large scale starvation and thus exceptionally high food prices, exacerbated by concurrent conflict/insecurity (Ukraine conflict!) and disease outbreaks. These environmental stresses have devastating effects on the agro-pastoralist communities, leading to failed crops, loss of livestock, and chronic food insecurity. In 2023 alone, it is estimated that 8.3 million people in Somalia or almost 46% of the country's total population required humanitarian assistance due to these compounded crises, which have been further intensified by the country's complex socio-political landscape and institutional fragmentation. Last year, specifically, Famine (IPC Phase 5) was projected among agropastoral populations in several areas, including but not limited to Baidoa.

The prolonged civil conflict in Somalia has severely undermined the country's governance structures, leading to a fragmented approach to public service delivery, particularly in water resource management. The federal system has frequent conflict with federal member states, for example Puntland state. Such clashes have led to undermining and fragmentation of State authority, with different regions and clans operating as autonomous entities which resulted in unequal access to water resources and environmental degradation. These decentralized governance frameworks, have further complicated coordinated efforts in the water sector across federal and state levels, making it challenging to implement cohesive and effective water management policies.

The Need for Integrated Water Resources Management (IWRM)

Given the dire water scarcity and the increasing frequency of climate-induced disasters, there remains a critical need for an integrated approach to water resource management in Somalia. The IWRM approach adopted by this project aims to ensure sustainable water access and disaster risk reduction for agro-pastoralist communities. The project is designed to strengthen the technical and operational capacities of both federal and state institutions in managing water resources effectively, thereby enhancing the resilience of communities against climate change.

2.3 Immediate and development objectives of the project

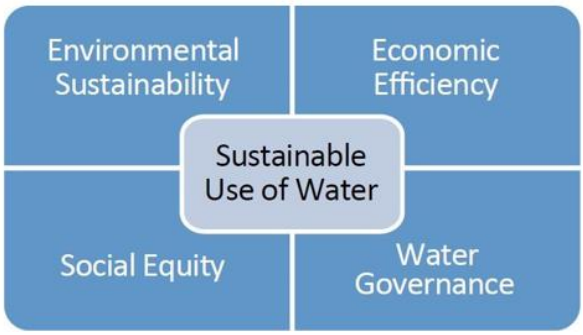
The design logic of the project is based on the paradigm of holistic, integrated water resource management including the foundational principles of environmental sustainability, economic efficiency, social equity, and water governance. All these interrelated factors are underpinning the overarching goal of introducing

[1] https://www.statista.com/statistics/1395543/countries-most-exposed-to-droughts-by-risk-index-score/

[2] https://reliefweb.int/disaster/dr-2015-000134-som

and promoting, the sustainable use of water. The project's design logic addresses both the dimension of short-term objectives (e.g., disaster risk reduction) and long-term goals (e.g., sustainability).

Figure 1: Sustainable Use of Water



(Source: page 15, Prodoc)

Project Objectives, Strategic Components – Expected Results

The overarching objective of the IWRM project was to reinforce the capacities of Somali national institutions to develop and implement policies that ensure sustainable water resource management in the face of climate change. This included the national water strategy and a decentralized water governance framework. The project was structured around three strategically linked components:

- National Water Resource Management Policy: This component focused on developing a robust policy framework that delineates the roles and responsibilities of national and state entities, thereby supporting a decentralized approach to water governance.
- Technology Transfer for Climate Risk Monitoring: The second component sought to enhance the technical capacity of institutions in monitoring and reporting on water resources, particularly in drought and flood-prone areas.
- Improved Water Management for Agro-Pastoralists: The third component aimed to directly support agro-pastoralist communities by improving water management practices and diversifying livelihoods to reduce vulnerability to climate risks.

A map showing project sites as per original planning can be found in Annex 5.11.

The project consisted of three interlinked components, each of which contained a set of outputs with their respective activities:

- The first component focused on providing an enabling environment with the development of an IWRM strategy to achieve the following outputs:
  1. Policy, legislative and institutional reform for improved water governance, monitoring, and management in the context of climate change.
  2. Strengthened government capacities at national and district levels to oversee sustainable water resources management.
- The second component was designed to expand hydro-geo-meteorological monitoring networks to achieve the following outputs:
  1. Improved water resource data collection and drought/flood indicator monitoring networks in Somalia's Arid and Semi-Arid Lands (ASALs);
  2. Strengthened technical personnel from the National Hydro-Meteorological Services in IWRM and flood and drought forecasting;
  3. A better understanding of the current hydrological and hydrogeological situation.
- The third component focused on surface and groundwater to support agro-pastoral economic and social development to achieve the following outputs:

1. Reduced vulnerability for agro-pastoralists to water resource variability through investment in water resource management infrastructure and training on the livestock value chain.
2. Increased awareness of local communities on rainwater harvesting, flood management, and water conservation during rainy seasons.
3. A national groundwater development action plan that will increase access to water for pastoral communities in drought-affected areas taking into consideration aquifer characteristics, extent, location, recharge, GW availability, and sustainable yields.

2.4 Main Stakeholders (Summary)

The list of main stakeholders of the project spanned across several categories including UNDP as overall project manager and facilitator, policy level co-managers at federal and state level ministry level also benefiting from project interventions at the policy and institutional capacity level(s) (Outcome 1), to technical entities such as TVET centers and hydro-meteorological professional community etc. (Outcome 2), all the way to agropastoral communities in the project areas as key beneficiaries in targeted locations, as well as field level contractors hired for construction purposes (Outcome 3). The general population downstream, who had been exposed to the constant latent risk of falling victim to floodings and inundations also counts as indirect, if not direct beneficiary. The detailed version of the table can be found in the table under section 3.1.4 (planned stakeholder consultations) and 5.3 (actual interviews held).

Table 6: Summary List of Project Stakeholders

No.	Key Stakeholder Categories
1.)	Federal ministries (MoECC, MoWRD)
2.)	Regional Member State government / relevant line ministry representatives (MoEACC, MoWRD, PWDA)
3.)	Local implementing partners (NGOs etc. such as PENHA)
4.)	Local community leaders including PwD and other marginalized people
5.)	Monitoring and evaluation specialist, UNDP Somalia
6.)	Other UNDP project staff
7.)	International partner entities including donor entities

The environment including the flora and fauna counts among key beneficiaries. The rehabilitation of rangelands had a beneficial effect on preserving or re-establishing the natural environment, including the habitat of various species. The adage that water is life implies the positive of the infrastructure put in place to harness the force of water which, through spring floods and inundations had a destructive effect not only on the fields' topsoil and other productive assets in and around the agropastoral communities' villages, but also on the biodiversity and thus, the livelihoods of men and homes of the local population

and the habitats of animals living in the project areas, alike. Therefore, it can be said that the biodiversity in the overall ecosystem benefited from the project.

Downstream communities form an important element of indirect project beneficiaries since thanks to the project, the risks of negative fall-out from floods were dramatically reduced. Related project measures included early warning systems but also actual risk mitigation through the construction of water infrastructure allowing to channel, control, re-direct and store excess water. Related to this, as far as relevant third-party, direct or indirect beneficiaries are concerned, a case can be made for including a host of complementary partner entities or projects involved in flood risk management encompassing reduction and mitigation measures can be named, including but not limited to such international, regional or national entities, NGOs/CSOs or projects as FAO SWALIM, the IGAD Climate Prediction and Applications Centre (ICPAC), the UN Economic Commission for Africa (ECA) Africa, PENHA, the Red Cross Red Crescent, PROSCO or any other charcoal-focused initiatives, the Agroforestry Center in Nairobi and Kenya Forestry Research Institute (KEFRI), the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), IGAD's Hydrological Cycle Observing System (HYCOS) project under the In-land Water Resource Management Programme (INWRMP).

In terms of the positive effects on the (local and regional) economy, the various spin-off effects of the project also benefited those among the local population who were already, or thanks to the project's effects became, involved in the cattle, dairy and general agricultural value chain, including the transport, production, harvesting, manufacturing, storing, transporting, trading, provision of related services like renting out agricultural machines and equipment for plowing and harvesting, accounting and auctioning off livestock including cattle and camels, and selling inputs such as tools, seeds, fuel etc. of the various goods, products and produce, must be mentioned here.

In addition, there is the general population in the project areas as well as the general regional marketplaces that benefit from access to locally produced, home-grown vegetables and greens, fruits, fresh meat etc. that positively affect the quantity and quality of their respective dietary intakes with the related beneficial consequences on their general health. This also includes mothers and their offspring, before and after birth, who benefit from the positive effects on enhanced food security. Importantly, the project also included the mainstreaming of LNOB aspects to promote social equity. Through specific targeting of women and PwDs within project communities, power differentials were influenced in favour of women and the disabled, by allotting them specific minimum threshold quotas for the water committees and capacity building interventions.

Last but not least, the polity at large can be counted among the beneficiaries, given the positive effects on the image and reputation of the federal and regional governments and administrations, as conveyed through the existence and performance of the stakeholder institutions at the levels of the federal State of Somalia and its regional States. All the aforementioned entities benefited from the project's positive effects on state and institution building, related capacity building and coordination support, and even communal/community-level "peacebuilding/peacekeeping" where applicable.

As will be shown in the section on main findings in more detail, the project instilled a sense of peaceful conviviality well beyond mere co-existence, at the level of intracommunal and intercommunity relations (cf. the related success story/case study further down in the report, showing the positive effect on interclan dynamics where, in the absence of the IWRM interventions, negative dynamics of strife and conflict would likely have prevailed). In terms of economic benefits, one can also add local and regional sovereign revenue from taxes, levies and dues on the various goods and services as per the taxable transactions along the various value chains (dairy, cattle, fodder etc.) including sales of products/produce and services, tools and other agricultural inputs.

2.5 Theory of Change

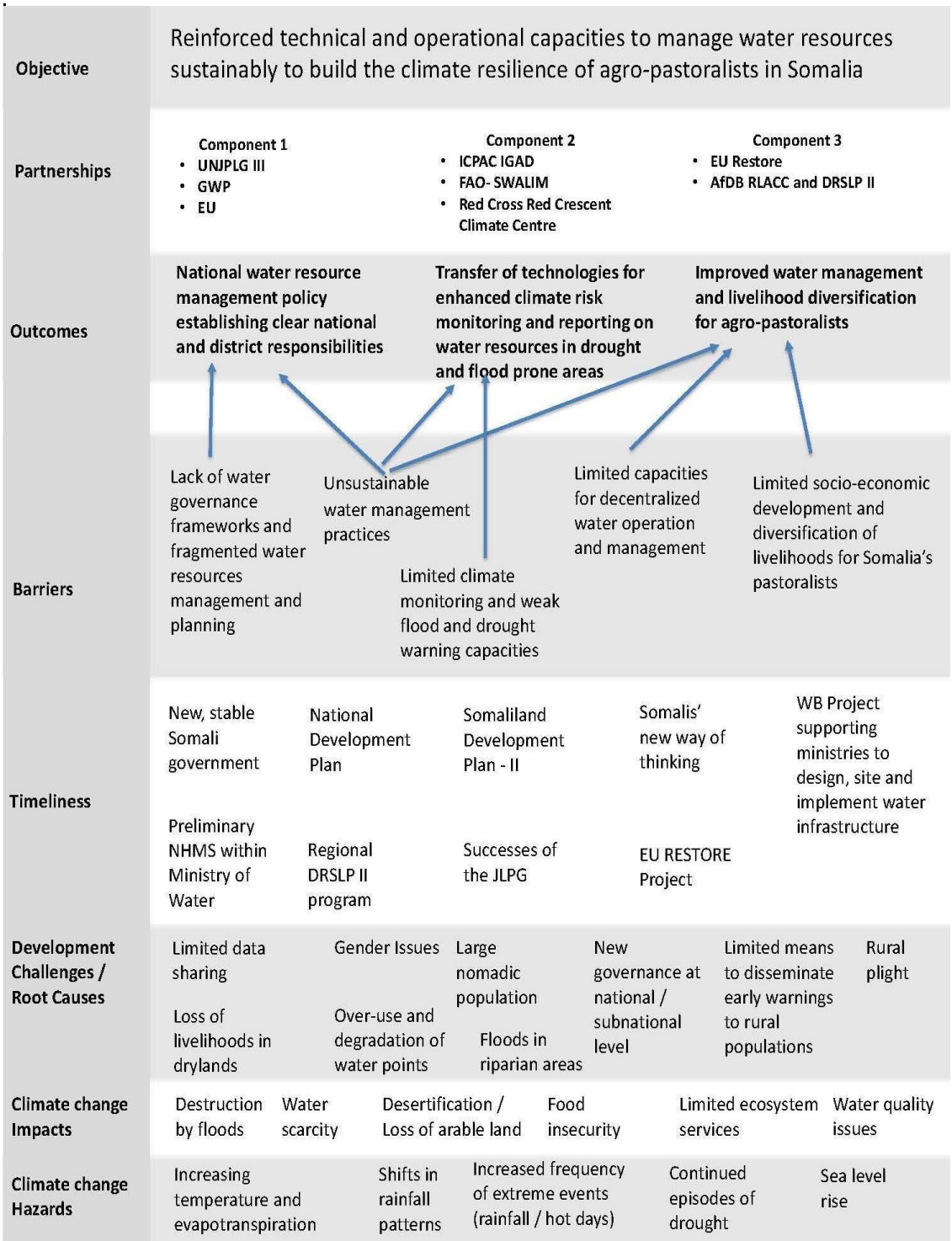
The IWRM project's Theory of Change (ToC) encapsulates the variety of complex linkages between the development challenges at hand and their respective underlying root causes. It details how the activities set out to address the existing barriers and describes the intended and required partnerships to achieve the desired outcomes. The Theory of Change for the project focuses on reinforcing technical and operational capacities to sustainably manage water resources and enhance the climate resilience of Somalia's agro-pastoralists. This initiative was designed in collaboration with various partners, including ICPAC IGAD, FAO-SWALIM, EU Restore, and others, ensuring a comprehensive, multi-stakeholder approach.

The project's key outcomes include(d) establishing clear national water management policies, transferring technologies to improve climate risk monitoring and reporting, and enhancing water management practices to diversify livelihoods for agro-pastoralists. However, several barriers needed to be addressed, such as a lack of governance frameworks, fragmented water resource planning, unsustainable water management practices, and limited capacities for decentralized water management. Additionally, socio-economic challenges hindered the diversification of pastoralist livelihoods.

The project's timing aligned with national and regional priorities, such as Somalia's National Development Plan and the successes of initiatives like the EU Restore Project. These contextual factors provided a supportive framework for implementing the planned interventions. The project was designed to address pressing climate challenges, including floods, water scarcity, desertification, protracted droughts and sea-level rise, which threaten the livelihoods and ecosystems of Somalia's drylands.

The Theory of Change emphasizes capacity building as a crucial strategy to overcome governance and operational gaps. By strengthening institutional and technical capabilities at national and district levels, the project aimed to address systemic weaknesses. Additionally, the transfer of technology was prioritized to enhance climate risk monitoring and early warning systems, particularly in drought-prone areas. Understanding the socio-economic barriers facing agro-pastoralists informed the design of livelihood diversification initiatives, helping to build resilience and reduce vulnerability to climate-related shocks.

Table 7: Support for Integrated Water Resources Management to Ensure Water Access and Disaster Reduction for Somalia's Agro-Pastoralists



(Source: Prodoc, p. 25)

3. Findings

3.1 Project Design/Formulation

3.1.1 Analysis of Results Framework: project logic and strategy, indicators

Strategic Result Logic

The project design addressed a number of key factors underpinning the resilience of agro-pastoralist households, while also tackling general systemic weaknesses, threats and related institutional capacity building opportunities. It did so through a combination of three strategic pillars or outcome areas that each consisted of a sub-set of interrelated technical interventions. More specifically, these three outcome areas addressed the following areas:

-Under Outcome 1 ("National water resource management policy establishing clear national and district level responsibilities"): The institutional sphere at policy level through guiding institution building (such as the Ministry of Environment and Climate Change which prior to its inception thanks to the project existed as a department-level entity devoid of a ministerial status and related prerogatives or privileges), institutional capacitation by supporting the design and implementation of policies, strategies and related action plans, thus contributing to SDG16, among others.

-For Outcome 2 ("Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood prone areas"): The introduction, installation and dissemination of hydro-meteorological and water quality laboratory technology including the capacitation of technical staff and education/vocational training of water sector specialists and hydro-meteorological technical experts, interfacing and contributing to the general outcome area of DRM/DRR.

-Under Outcome 3 ("Improved water management and livelihood diversification for agro-pastoralists"): The design and erection of water and flood management infrastructure at agro-pastoral community level including berkads, water basins, water distribution troughs for cattle etc., thus preserving, boosting and creating livelihoods through harnessing the inherent potential of water, by transforming the former threat and destructive force into a productive vector of wealth creation.

The interplay of the aforementioned outcome areas acted as structuring element that, among others, had positive effects on federal/regional state relations and policy coordination most likely far beyond only the water sector, disaster risk prevention and mitigation, securing production in the agropastoral sector while injecting innovative and affordable water management designs at grassroots level, contributing to rangeland rehabilitation and boosting biodiversity, strengthening the productivity and confidence of local individual and collective actors involved in agropastoral value chains with its corollary of triggering revenue streams and related employment creation among other socioeconomic effects.

In addition, positive spin-off effects included the copying of community level water storage infrastructure and related architectural design features (laying of stones, fitting ground with PVD to avoid seepage etc.) by private individuals, in addition to infrastructure financed through the project. Also, there has been a welcome side effect thanks to the stabilization of interclan relations. Further, there have been positive sociopsychological effects in boosting the confidence of women and PwDs as specific population groups targeted to get involved in village level governance bodies ("water management committees").

Another positive consequence was the reduction of SGBV incidents thanks to drastically reducing the distances which need to be covered by women and children when fetching water for household needs. Directly linking households to water access through putting in piping connecting water storage

infrastructure with individual houses or huts has already been introduced in some villages, through the initiative of water management committees and communities.

Whereas the indicator framework covered relevant indicators covering institution building and institutional capacity development, technology transfer and infrastructure building, clearly formulated results and related measures for gauging progress among the dimensions of household level resilience (asset base, calorific intake etc.), livelihoods, peace and stability were notably absent from the M&E framework. Also, LNOB/GEWE-specific indicators outcome indicators (beyond a computation of the female or PwD share among committee members) could have been much more present in the indicator framework. Individual or cohort tracer studies and KAP survey approaches were visibly absent from the M&E toolkit.

Critical Review of Project Indicators

The IWRM project's Results Framework provided a structured foundation for planning, monitoring, and evaluating the project's progress. It outlined specific objectives, components, and associated indicators to track achievements against the project's intended outcomes.

A detailed review of the project's indicators reveals a mixed adherence to SMART (Specific, Measurable, Achievable, Relevant, and Time-Bound) criteria:

- Specific: Most indicators were clear and directly linked to the project's objectives, such as the number of climate-resilient water infrastructures completed or the percentage of women participating in water governance committees. However, some indicators lacked precise definitions, such as "improved community resilience," which could lead to varying interpretations.
- Measurable: Quantifiable indicators like "number of individuals trained on water resource management" were prevalent and well-suited for monitoring progress. However, qualitative outcomes like "enhanced community trust in water governance" lacked robust measurement mechanisms.
- Achievable: The majority of the indicators were realistically set within the project's capacity and resources. Nonetheless, a few targets, such as fully operational hydro-meteorological networks across all regions, were overly ambitious given the project's time and resource constraints.
- Relevant: Indicators aligned closely with the project's objectives of improving water access, resilience, and governance. However, some indicators, such as those related to ecosystem rehabilitation, could have been further specified to reflect biodiversity or rangeland recovery metrics.
- Time-Bound: Most indicators included clear timelines for achievement, which supported periodic monitoring. However, some long-term outcomes, such as sustained institutional capacity, were harder to measure within the project timeframe.

The Results Framework was adjusted during the midterm review to address implementation challenges and refine indicators. Key revisions included:

- Adjustment of Targets: The targets for infrastructure development and training were revised upward due to the project's ability to exceed initial expectations in these areas.
- Introduction of Gender-Specific Metrics: Indicators were enhanced to include gender disaggregation, reflecting a stronger emphasis on cross-cutting issues.
- Clarification of Definitions: Some vague indicators were redefined to improve monitoring accuracy.

These revisions strengthened the framework's alignment with project priorities and improved its utility for adaptive management. Furthermore, the Results Framework demonstrated significant progress in disaggregating indicators, particularly by gender. For example:

- Training-related indicators specified percentages of women participants, aiming for a minimum of 30% female representation.

Beneficiary-related indicators distinguished impacts on female-headed households, PwDs, and IDPs. However, disaggregation could have been expanded to include age groups, socio-economic status, and geographic variations to provide a more nuanced understanding of project impacts.

Overall assessment

With regards to the clarity, practicability, and feasibility of project objectives and related various components, it can be said that the project's objectives and components were well-defined, aligning with Somalia's pressing needs for water resource management and climate resilience. The Theory of Change clearly articulated the pathways to achieving these objectives, as follows:

- Clarity: The three components—policy development, technology transfer, and water management for agro-pastoralists—were logically interlinked, providing a cohesive strategy for addressing water scarcity and resilience.
- Practicability: The project design integrated community-driven approaches and capacity building, which were practicable given the local context. However, implementation was occasionally constrained by external factors such as security challenges and resource limitations.
- Feasibility: While most objectives were feasible within the project's five-year timeframe, certain long-term goals, like achieving widespread institutional sustainability, required additional support and follow-up efforts beyond the project cycle.

In summary, the Results Framework effectively guided the IWRM project but could have benefited from further refinements to ensure SMART indicators, comprehensive disaggregation, and more realistic long-term targets. Adjustments during the project cycle improved alignment with objectives and enhanced the framework's responsiveness to evolving challenges.

3.1.2 Assumptions and Risks

The Prodoc's risk matrix listed seven items, five of which were assessed as medium level risks whereas the remaining two were classified as low level risks. The medium level risks were: i. Low level of cooperation between executing institutions due to political divisions and the existence of distinct states in Somalia; ii. Security risks; iii. Lack of nationally available expertise and human resources, iv. Increase in the frequency of flood events and continued drought, v. Insufficient and technical operational capacity on all levels.

"Limited climate monitoring inhibits forecasting capabilities" and "Targeted agropastoralists are skeptical and unwilling to exploit livestock products" were seen as low-level risks. It must be noted that, in reality, the number of risks should have been scaled down to six or even five, since the capacity-related items iii. and v. show significant overlap or might even be seen as identical. Similarly, the first low level risk is a sub-section of the general concern about staff quality. Other than that, no serious risks were overseen and the assessment of the probability or likelihood of occurrence and the respective assumed impact do not show any major flaws.

A nuanced analysis of the risks reveals that, essentially, all of them carried the potential for high impact regardless of their likelihood ratings. A closer examination of the relevance and appropriateness of the proposed mitigation strategies in light of the socio-political and environmental realities of Somalia reveals the following:

The risk of low level of cooperation between executing institutions had the potential to derail the project entirely, as political divisions and the existence of distinct, semi-autonomous states in Somalia often hinder effective coordination. Without cooperation between executing institutions, it would have been nearly impossible to implement a unified water management policy or achieve project outcomes. The proposed mitigation measure, which emphasized clear management arrangements and the involvement of diverse stakeholders—local governments, NGOs, and CBOs—was well-targeted. It acknowledged the political fragmentation of Somalia and prioritized inclusivity, thereby fostering trust and collaboration. This strategy was particularly pertinent in mitigating the risk's high impact, as local partnerships were critical to bridging political divides and ensuring sustainability.

The security situation in Somalia had the potential to significantly impact the project, as instability could disrupt operations, endanger staff, and restrict access to target areas. This was a medium-likelihood risk with high impact, given the direct and cascading effects of insecurity on project implementation. The mitigation strategy of focusing on relatively stable areas and adopting inclusive approaches—drawing from lessons learned in successful projects like the NAPA and LDCF—was relevant and necessary. By engaging diverse stakeholders, including women and youth, the project aimed to reduce potential tensions and foster local ownership, which could enhance resilience in the face of security challenges.

Regarding the risk of an increase in the frequency of floods and continued drought, climate change posed one of the most pressing risks in Somalia, with severe implications for water availability, agriculture, and livelihoods. While this risk was rated as medium likelihood, its potential impact was unquestionably high. Recurrent droughts and floods could devastate agro-pastoral communities and hinder project outcomes. The project's strategy of tailoring water management practices to local climatic conditions, combined with measures to promote resilience—such as nursery establishment and hydroponic fodder production—was well-suited to addressing these challenges. These interventions not only mitigated immediate risks but also supported long-term adaptation to climate variability, underscoring the strategy's pertinence in a high-impact scenario.

With regards to the risk of insufficient technical and operational capacity on all levels, the lack of capacity at both the governmental and community levels represented a systemic challenge with high potential for impact. Without adequate training and technical expertise, the project could have faced significant delays or implementation failures. The proposed mitigation measure, which focused on developing an IWRM policy and providing technical training, was essential. By enhancing institutional coordination and building local expertise, the project addressed a foundational gap that could have undermined its long-term success.

Finally, while rated as low likelihood, two of the identified risks carried the potential for high impact had they materialized. In as far as the risk of limited climate monitoring inhibiting forecasting capabilities was concerned, the absence of robust climate forecasting systems in Somalia could have had far-reaching consequences, particularly given the country's vulnerability to extreme weather events. Without accurate forecasting, communities and institutions would have struggled to prepare for or mitigate the effects of floods, droughts, or other climate-related disruptions. While this risk was considered low likelihood, its impact could have been significant, particularly in regions highly dependent on rainfall for agriculture and pastoralism. The mitigation strategy—leveraging regional forecasting products and collaborating with organizations like FAO and the Kenya Met Service—was appropriate and pragmatic. By utilizing external resources, the project aimed to fill critical gaps and reduce the potential for large-scale disruptions caused by climate variability.

Last but not least, with regards to the risk of potential reluctance of agro-pastoralists to embrace alternative livelihoods or livestock products, it is clear that if these groups had resisted change, the project could have faced challenges in achieving its objectives of improving resilience and sustainability in rural communities. The mitigation strategy focused on providing extensive training and demonstrating the value of livestock products, such as milk, yogurt, and cheese. Additionally, the project aimed to empower women-led groups and promote alternative income sources through South-South knowledge exchanges. This strategy was well-conceived, as it targeted both the technical and social barriers to adoption, ensuring that the project addressed the root causes of skepticism while promoting community buy-in.

The analysis demonstrates that, basically, all the identified risks had the potential for high impact due to their interconnected nature and Somalia's unique challenges. Risks such as political fragmentation, insecurity, climate variability, and insufficient capacity posed significant threats to project outcomes, while even low-likelihood risks like limited climate forecasting or agro-pastoral resistance could have had cascading effects had they remained unaddressed. Overall, the mitigation measures proposed in the document were generally well-targeted and appropriate for the context. By emphasizing inclusivity,

capacity building, and adaptive management, the strategies sought to address both the immediate and systemic challenges inherent in Somalia's socio-political and environmental landscape. Their focus on leveraging local knowledge, fostering collaboration, and integrating climate-resilient practices ensured a holistic approach to risk management, enhancing the likelihood of project success despite the challenging context.

Overall, the foundational logic of the project design was to prevent and mitigate climate hazards thereby reducing related negative impacts, by turning threats into opportunities. Under the stewardship of strengthened institutions (outcome 1), the project interventions curbed the likelihood of downstream communities falling victim to repetitive and thus, over the long haul, predictable flash flood events and inundations destroying assets, livelihoods and producing casualties among cattle/livestock and the population. Outcomes 2 and 3 addressed these concerns through implementing activities meant to build flood prediction capabilities and constructing appropriate water infrastructure (outcomes 3 and 2, respectively).

The infrastructure component at community level hinged on the construction or rehabilitation of water channels and reservoirs. The reservoir design was an improved version of the so-called "berkad", thereby integrating community-driven solutions based on local knowledge and expertise for the purpose of climate hazard mitigation.[3] Berkads were introduced to Somalia in the late 1950s as a locally adapted solution to water scarcity. It must also be noted, however, that while berkads have revolutionized water access, especially for pastoralists, they have also contributed to overgrazing and ecological degradation. For instance, in the Haud steppe, the proliferation of over 7,000 berkads by the early 2000s disrupted traditional nomadic migration patterns, leading to permanent grazing, erosion, and increased settlement pressures. Balancing their benefits with sustainable land and water management practices is critical to ensuring their long-term viability and thus needs to be taken into consideration for future upscaling and replication.

Other than that, in the project sites, berkads and related infrastructure to capture, channel, direct and store water also helped to address top soil erosion due to prolonged absence of water caused by climate change. The solutions that allowed for excess water to be retained prevented destructions by an overabundance of water while also, at the same time, addressing the problem of protracted scarcity. Further, the harnessing and storing of water enabled limited ecosystem support including the rehabilitation of rangelands as well as restoring and preserving biodiversity along and around the water infrastructure.

Enhanced access to water allowed to turn food insecurity into positive effects on bolstering food security and even dietary diversity. The interlinked pressure points and strategic approach allowed to activate democratic and economic governance aspects at the macro (polity coherence and reputation through structuring effects of policy coordination), meso and micro levels (preventative and soothing effects on inter and intra-clan conflict vectors directly or indirectly linked to access to water for livestock and at household level). Overall, the project design can be categorized as precursor to the portfolio logic, within a single project.

[3] Designed as large, rectangular basins with vertical walls and a capacity of several hundred cubic meters, they are traditionally often coated with cement or lined with bricks to minimize water loss through infiltration while their open tops are covered with canvas, nets, or locally sourced materials like branches and straw to reduce evaporation. Berkads naturally fill during the rainy season, with water routed from small streams via trenches or canals, sometimes extending several kilometers. To improve water quality, many berkads feature "catch-pools" at the inlet to trap sediment and reduce contamination. Despite this, the water often remains turbid and can harbor pathogens, posing significant health risks, including waterborne diseases such as cholera and diarrhea. Addressing this, advanced designs include airtight sloping roofs to distill water through evaporation and condensation, providing clean, potable water while also reducing evaporation losses. Simple filtration methods, periodic cleaning of sediment, and community education on safe water handling can mitigate health risks. However, advanced systems like distillation roofs are often too expensive for rural communities to install without external support and would have thus remained out of reach without UNDP-GEF support.

Related assumptions hinged on the ability to mobilize the requisite co-financing and ensure the political buy-in for the project. However, since the vast majority of the population are agropastoralists and the project design hit the sweetspot of the food/water as well as humanitarian-development nexuses and even, at least indirectly, the wider food-water-energy triad and the tripe HDP nexus, the related risks were relatively minor. Another, more risky assumption was the political ability to translate federal policy into reaching the grassroots through community level action. In a couple of isolated cases, political relations between the center and the regional powers actually did constitute a bottleneck, hindering the project from moving forward by blocking interventions. However, this was only the case over a relatively short timespan. Thirdly, another major assumption, linked to the precedent ones, was that the scope of the project would be sufficient to provide sufficient amounts of tangible and convincing evidence for a scalable proof-of-concept.

Other relevant assumptions included the existence of sufficient amounts of acumen, propensity and overall readiness among the population to use early warning messenger services; and the overriding ability to mobilize local populations and gain their confidence and trust. This was achieved through sensitization and communication measures, inclusive participatory techniques to tailor project design features according to local preferences and needs, and empowering the local population through handing over the responsibility for the local water infrastructure, water usage and maintenance, to community level governance structures in the form of so-called water management committees. The assumption that rainfall would indeed happen did, however, not materialize in all locations selected as project sites. In those cases, which constitute a sizeable minority that cannot be neglected, while the population understands the potential benefits and the underlying theoretical stratagem of the interrelated project features, tangible benefits have still not appeared. There is a risk that in those areas, the cost-benefit ratio will turn out to be sub-par.

3.1.3 Lessons from other relevant projects (e.g. same focal area) incorporated into project design

The design of the IWRM project built on a number of lessons from previous experiences and lessons made by other, inter-related programmes and projects, both in terms of building on indigenous water management expertise and the existing knowledge base of water infrastructure design.

For example, the project built on the backbone of the DRM-related climate data MIS put in place by the five previous phases of the Somalia Water and Land Management Information Management (FAO-SWALIM). [4] IWRM Outcome 2was to further expand on the density and capacity of the data collection system through investing into further training of NHMS to improve MinWater/DRM Units' flood warning and drought management capacity. Linked to this training of specialized professional staff was the grassroots monitoring component of empowering local youth, women, PwDs and the elders (traditional leaders) by instilling water management knowledge so that could contribute to data collection for flood and drought monitoring and early warning purposes. In doing so, the GEF/LDCF2 project IWRM also built on related experiences from the predecessor project LDCF1. IGAD's Climate Prediction and Application Centre (ICPAC) also had lessons to offer regarding DRM-related data collection and analysis including the development of climatological calculation and projection models, prediction and early warning protocols etc.

The capacity building components on various levels also built on feedback about previous experiences from the EU's RESTORE project which had focused on enhancing Somali institutional stakeholders' capacity to effectively design and implement resilience activities. Meanwhile, the infrastructure design components benefitted from the wealth of related knowledge accumulated by recent relevant projects, such as the AfDB's "Water Infrastructure Development for Resilience in Somaliland" project that started in 2016 and ended in 2020; and the AfDB "Drought Resilience and Sustainable Livelihoods Programme in the Horn of

[4] Web links: FAO SWALIM; FAO ILWRM Overview

Africa" (DRSLP II; 2013-2021, USD 22.5m).[5] The WIDR-SL project had been engaged in the design, construction and rehabilitation of water management infrastructure for water harvesting, storage and distribution with the purpose of supplying a secure, steady and quality water supply for human, agricultural and agropastoral/livestock consumption.

Furthermore, the DRSLPII project had amassed a wealth of knowledge regarding livelihoods support for pastoral and agro-pastoral communities in drought-prone arid and semi-arid areas of Somalia, including how to best improve water availability and access/distribution, livestock management and production, marketing and value chains. DRSLPII also had lessons to share regarding institutional and staff-level capacity building, particularly for the Ministries of Livestock and Agriculture. This enabled the overall coherency and comprehensiveness of IWRM's water management infrastructure planning. Similarly, the AfDB project could also share data on solar-powered irrigation and livestock watering systems which informed the design of relevant technological elements such as the IWRM solar-pump specifications, watering troughs etc.

Another relevant AfDB-funded project that IWRM could build on was RLACC II ("Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa").[6] It had lessons to offer regarding the planning of infrastructure design components and on how to integrate climate change mitigation into community development plans through mainstreaming. Furthermore, it included rural capacity building regarding the diversification of agro-pastoral livelihoods along the dairy product and hide/leather value chains. This included lessons to share about trainings on water resource management, livestock health management, farming methods using drought resistant varieties, resilient rangeland management techniques. For this specific project encompassing infrastructure-related design components, related best practices regarding design features, materials, construction processes etc. were taken into account and informed the IWRM project's approach in terms of selection of local building materials, engagement and training of local labour).

The Danish Refugee Council's (DRC) interventions from 2017-2019 (USD200,000) in the area of Beletweyne provided valuable lessons for the upscaling of river embankment methods and (hydroponic) fodder production which informed the respective IWRM design components. The Global Water Partnership (GWM) and DANIDA had joined forces from 2014-2018 in the form of the "Integrated Drought Management program in the Horn of Africa". The IDMP HOA project had focused on enhancing the collaborative partnership and coordination by introducing an integrated water resource management approach as a tool for holistic drought management including influencing policy design and implementation. The IWRM project built on this in terms of adopting the general paradigm of comprehensive WR management, including the policy focus of Outcome 1 in view of promoting and ensuring coherent and well coordinated strategic IWRM planning at policy level, but also by providing LNOB strata (youth, women, PwD) with technical expertise to enhance their livelihoods by providing training in water system operations and related management skills.

Another initiative the IWRM's outcomes 2 and 3 benefited from was the 2016-2020 Red Cross/Red Crescent-driven Hunger Resilience Partnership (HRP; USD1m). This co-production of the Kenyan Red Cross and the Iranian Red Crescent supported the federal policy level to increase the reliability of weather forecasts. The project also had valuable lessons to share in terms of grassroots level support, thanks to its experiences garnered by supporting the food security and general nutrition quality of 2,500 pastoralist and agro-pastoralist households in selected regions in Puntland and Somaliland.

The project promoted the utilization of seasonal flood waters for growing vegetables, fruit and fodder production and related income generation for the local population. A similar predecessor project the lessons of which were used for the design of IWRM's outcome 3 was the "Pastoral and Environmental Network in the Horn of Africa" (PENHA; USD1m). PENHA was a DFID-funded programme under the UK's

[5] AfDB DRSLP
[6] RLACC Overview

Agritech Catalyst initiative. It had garnered insights into using wind and solar photo-voltaic power for setting up greenhouses, as well as seawater treatment through reverse osmosis, to make it palatable for animals and so it could be used in greenhouses to grow fruits and vegetables.

The UN-JP on Charcoal Reduction and Alternative Livelihoods (PROSCAL, 2016-2020, USD6.6m) also focused on introducing and promoting alternative livelihoods for rural populations in Somalia. The focus was on providing alternative approaches for women, in particular, to abandon the utterly destructive and unsustainable practice of charcoal production and trade and take up innovative agro-pastoral value chains such as fodder and dairy production, instead. In focusing on the women, the project tackled deforestation given their huge role in charcoal production. In terms of supporting livelihoods diversification, the IWRM also built on lessons from the EU-funded Initiative for Somalia (2013-2019; USD34m) which was designed to reduce hunger and food insecurity in Puntland through the sustainable use of rangeland resources.

Moreover, the IWRM benefited from lessons provided by the joint DPPA/UNDP "Regional Prevention Strategy for the Horn of Africa" (2019-2023). This five-year initiative pursued a multi-sectorial approach to stabilize countries, regions and communities in the Horn of Africa by breaking the cycles of recurrent crises and disasters, both natural and man-made also taking into account the nexus between climate change-induced natural/habitat degradation, the loss of livelihoods and household assets and the related political economy of conflict and warfare. This was linked to conflict prevention and peacebuilding through integrated HDP/triple nexus programming, especially by informing the design of Outcomes 1 and 2 activities tapping into cross-border approaches such as setting up multi-national river basin authorities for the Shebelle and Juba rivers.

Finally, an interesting element in terms of the interplay between the various layers of official and traditional governance was picked from the JPLG's experiences to optimize the balance between central and sub-national institutions. For instance, the design of the water management committees drew on relevant lessons about the role of customary law ("xeer") for water management purposes, with regard to managing access and distribution rights and related conflicts.

3.1.4 Planned stakeholder participation

The principles of participation and inclusiveness were mainstreamed throughout the overall programme design as well as the work plan-related planning of the specific interventions per Outcome area. While Outcomes 1 and 2 involved decision makers, policy planner and technicians during project design and action planning, Outcome 3 work planning also involved extensive consultations with community members. During the design and ramp-up phases of the various outcome-specific interventions, lessons learned and best practices from the abovementioned predecessor or overlapping projects that had started several years prior to the IWRM project's life cycle were mainstreamed into the respective planning of activity specifications, exact work planning, as well as the related timing and budgeting.

At the level of policy design, general planning and coordination, the respective federal and regional State ministries dealing with water resource management, climate change and agropastoral concerns were involved in the coordination platform supported through IWRM's Outcome 1. IWRM provided support in the drafting of policies, strategies and related strategic frameworks, laws and by-laws, action plans etc. As part of Outcome 1, for example, the federal Ministry of Environment and Climate Change was set up as an independent entity at ministerial level. Regional governments were part of the design and implementation through their participation in the sectorial coordination platform.

In addition to the coordination fora, capacity building was provided for federal and regional policymakers and decision makers as well as planning experts at national and state levels through a series of specialized workshops. Issues of inclusiveness (barrier free infrastructure designs, women's and PwD participation and empowerment in and through the water management governance set-up and related quotas, processes etc.) were systematically mainstreamed into training curricula and training sessions, across the board.

Decision makers and planners were involved in the design of the IWRM strategy linked to the National Water Policy, to fill existing gaps and bridge inconsistencies between formerly incoherent and fragmented water management approaches. The fragmentization was (to be) overcome by promoting a decentralized approach to state level water management approaches, across the board, by integrating traditional, xeer-based customary management practices into State laws, in view of promoting sustainable water extraction and access rights, water conservation, water quality and pro-poor water supply.

Under Outcome 2, the key beneficiary and stakeholder group consisted of hydro-meteorological and DRM/DDR experts who benefitted from the provision of modern technological tools and applications such as pluviometrical gauges, radar river level sensors, rain and climate prediction and projection software including improvements to the already existing FRISC-DIGNIIN early warning system enabling it to provide country-wide and specifically tailored district-level early warnings. They were consulted in the selection of related hard and software that was built into Outcome 2. Similarly, the sector experts were consulted for, and thus involved in, the design of the National Hydro-Meteorological and Monitoring Service (NHMS) and related capacity development measures at national and regional district levels. TVET authorities and experts were involved in the related design of revised curricula and educational/professional programmes on water management. The same applied to water quality laboratory experts in Puntland, Galmudug, Southwest, Hirshabelle and Jubaland regional states.

Under Outcome 3, local level communities and stakeholders were involved in the design of project site specifications prior to the design of water management infrastructure such as berkads, pools etc. Extensive consultations were held, including for the establishment of water committees and the selection/appointment of members in respecting the minimum quotas for female and PwD members. Consultations allowed to build and foster local buy-in as a precondition of ownership and thus, project sustainability. During consultations, the preferences of community members for the exact project site were discussed.

The preliminary discussions and preparatory consultations allowed to hone in on the sweet spot between the dimensions of technical feasibility, land ownership concerns and local villagers' intrinsic preferences regarding the selection of the construction site(s) and related features. Technical staff was trained for promoting the monitoring and knowledge management regarding rainwater harvesting, flood management and value chain exploitation by local communities.—A detailed overview of foreseen stakeholders including NGOs and donors follows below:

Table 8: IWRM Stakeholder Overview

Federal Sector	State Members	Technical Agencies	Regional Sector	NGOs	Donor Partners
Office of the Prime Minister Directorate of Environment. Office of the Prime Minister Ministry of livestock and forestry. Ministry of Women and Human Rights Development. Ministry of Agriculture, Ministry of Planning, MoHADM (Federal level DRM agency) Ministry of Petroleum and Mineral Ministry of Energy and Water Ministry of Fishing	**1. Somaliland** Ministry of Women and social affairs Ministry of Environment and Rural Development and MoPlanning Ministry Of Agriculture, Livestock, Water, Energy, NDRC, NADFOR (Somaliland) **2. Puntland** Office of the state president Ministry of Women and Human Rights. Environment and livestock, Mineral Resources and planning. Puntland State Agency for Water, Energy and Natural Resources (PSAWEN), HADMA (Puntland) **3. Galmudug State** Office of state president Ministry of Environment Ministry of women Energy and livestock, agriculture and planning	Somali National University (Mog), Banadir University (Mog), Darul Hikma University (Mog), Hargeisa University, Amoud University, Burao University, Puntland State University, Institute for Development and Research Analysis (SIDRA) IGAD ICPAC Kenya Meteorological Service	Districts of Baidoa Luuq Baletweyn Ba'ad wayn Guriel Waajid Baidoa Kobdhaxad Gardo Dhahar Bayla Bursallah Dangorayo Libaaho Celbilcinle Beer Habariheshay	SOSCENSA (federal) WARDI (federal.) Candlelight, ADESO, Agricultural Development Organization, Nagaad network, Care international, KAALO, Puntland women association, Pastoral development cooperatives, RASAWAD welfare association (RAWA), Center for Peace and Development (CPD), Somalia development and relief organization (SDRO), (TARDO), SONYO	AfDB, European Union / European Commission, NORAD
Somali Marine Resource Research Center	**4. Hirshabelle** Office of state president Agriculture and livestock, mineral Ministry of environment Ministry of women and human Rights **5. Southwest State** Ministry Environment and water Ministry of agriculture, planning Ministry of Women and human Rights **6. Jubaland** Ministry of environment and water Ministry of livestock Ministry of women and human rights				

(Source: Prodoc, p. 41/42)

Overall, the IWRM project planned for and implemented multi-level stakeholder participation to ensure inclusivity and alignment with national priorities. One of the key stakeholders was the Ministry of Women and Human Rights Development (MoWHRD), whose role was pivotal in embedding gender considerations and human rights principles into project activities.

The MoWHRD's participation in the IWRM project aimed to strengthen gender-responsive water governance and ensure adherence to Somalia's human rights frameworks. The Ministry contributed in the following ways:

1. Policy Alignment and Advocacy:
   The Ministry played a role in aligning project activities with Somalia's National Gender Policy and broader commitments under Sustainable Development Goal 5 (Gender Equality). This included advocating for gender-sensitive approaches in water resource management and infrastructure development.
2. Capacity Building and Training Support:
   The Ministry collaborated in designing and delivering gender-focused capacity-building programs. For example, women were trained in leadership and technical skills, enabling their active participation in water management committees.
3. Monitoring and Evaluation of Gender Integration:
   MoWHRD provided inputs for monitoring frameworks to ensure that gender-specific indicators were included and tracked, facilitating accountability for gender equity outcomes.
4. Support for Women's Empowerment Initiatives:
   Through its networks, the Ministry facilitated the inclusion of women-led organizations and female-headed households in project consultations and beneficiary targeting, thereby amplifying the voices of women in water governance.

The role of MoWHRD in the IWRM project is documented in the following sources:

- Project Document (ProDoc): Detailed the planned engagement of the Ministry in gender mainstreaming activities and alignment with national policies.
- Progress Reports: Highlighted collaboration with MoWHRD on training programs and policy inputs.
- Key Informant Interviews (KIIs): Validated the Ministry's involvement, particularly in advocating for women's representation in water governance.

By engaging the MoWHRD, the IWRM project not only advanced its gender integration goals but also contributed to broader national objectives of promoting gender equality and human rights.

3.1.5 Linkages between project and other interventions within the sector

At the macroscopic level, the IWRM project was part of the UN Strategic Framework's Strategic Pillar no. 4 / "Social Development". This acknowledges that the project, while characterized by an emphasis on water sector-specific engineering and hydro-meteorological technology, was essentially a human resilience-centric project. Therefore, the IWRM project's contribution to the UNSF focused on climate resilient livelihoods of the local population (UNSF Outcome 2: "By 2025, the number of people impacted by climate change, natural disasters and environmental degradation reduced"; Output 4.2: "People-centered environment & climate smart strategies are put in place for sustainable natural resources management (NRM), including water, forests, rangelands, arable lands, and ocean fisheries").

The IWRM project constituted the second round of the LDCF (LDCF II) and therefore built on the LDCF I (2014-2019, USD8m). Other strategic frameworks, policies, strategies and related action plans or flagship programmes/projects the IWRM project was linked to included Somalia's National Development Plan's resilience-focused interventions, Somaliland's Development Plan no. II, and the Ministry of Water's NHMS. More specifically, the IWRM outcomes were also linked to a number of complementary projects implemented in parallel, whereas others had already concluded and thus qualified as predecessor projects the achievements of which IWRM built on in the concerned technical or respective regional areas.

While the IWRM's first outcome (policy level) interfaced or built on the third iteration of the UN-Joint Programme on Local Governance, the GWP, and EU interventions, its second outcome (DRM) could be linked, among others, to the IGAD ICPAC centre, the EU-sponsored FAO-SWALIM (2013-2018, USD15m), and the Red Cross/Red Crescent Climate Centre interventions. Meanwhile, its third component (field level infrastructure and livelihoods support) was complementary vis-à-vis the EU Restore project (2016-2020, EUR8m), and the AfDB RLACC (2017-2021, USD9.985m) and DRSLP II programmes (2013-2021, USD22.5m), and the WB's water infrastructure support project.

3.2 Project Implementation

3.2.1 Adaptive management

Throughout the implementation period, no major changes were required, with the exception of following social distancing rules (wearing of masks, respecting social distancing, relying heavily on remote meeting tools etc.) throughout the period of the COVID-19 pandemic. However, there was no need to bring any changes to the project design or outputs during implementation. Construction works were hardly affected by delays since carried out in the open. The only notable adjustment worth mentioning, other than the no cost extension that imposed itself due to some delays, was that in Baidoa equipment and staff could not be transported by road due to security concerns, and thus had to travel by air to reach the project site. In terms of the mentioned delays in implementation the Project Implementation Report (GEF-UNDP PIR 2024) mentioned several unforeseen factors that hindered the timely achievement of critical project milestones. These included:

1) The Federal Government and governments of Federal Member States in Somalia did not always actively participate in project coordination, particularly regarding adaptation infrastructure in southern regions.
2) The prolonged political transition process, which spanned 18 months, diverted attention from development programs and projects.
3) Somalia faced severe drought cycles during 2021-22, affecting pastoralist communities. Over 8.0 million people were impacted, and up to 60% of pastoralists' herds were lost. The scarcity of resources due to drought hindered project execution, especially in water-scarce areas.

The above factor all contributed to delays in reaching key milestones, such as reconvening Project Board Meetings, engaging with communities, establishing Water Quality Labs (WQLs), completing civil works, rehabilitating rangelands, training water technician experts, and implementing Early Warning Systems. In light of these challenges, in late 2023, the project board recommended a 10-month no-cost extension (until September 30, 2024. This extension allowed for necessary adjustments, successful project closure, and the achievement of outlined project outputs. Also, to ensure quality delivery and results, field monitoring and engineering supervision for civil works had been increased to expedite quality work.

Adequate monitoring frameworks and risk monitoring tools/logs played a crucial role in ensuring project effectiveness. In that respect, the project board adaptively managed the situation, providing frequent updates to ensure that monitoring frameworks and risk logs remained relevant. The implementation of the project aligned with the established procedures of UNDP/GEF/LDCF, involving close coordination with the project team and stakeholders. Regular technical reviews and oversight by the NCE RTA were conducted to maintain the required standards.

Continuous communication between the CO and the project team enabled effective performance management. In response to the extension request under review by the RTA and STA, the project team developed an extensive project schedule with clear milestones and deadlines, which were regularly monitored following RTA and MTR recommendations. The early identification of delays, challenges, and deviations allowed for timely action and response.

Furthermore, the budget for the extension period adhered to the annual work plan, and the project team actively monitored project expenses against budget costs. Close coordination with the CO and the Regional procurement team expedited the Terminal Evaluation and PIR reporting processes, ensuring the planned operational closure of the project in November 2024. The Country Office (CO) was in continuous communication with the project team, taking proactive steps to manage performance and ensure alignment with the annual work plan.

3.2.2 Actual stakeholder participation and partnership arrangements

Management Arrangements

Actual partnership arrangements did not differ from the planned ones. The IWRM's organization structure contained extensive arrangements for stakeholder participation. The organigramme foresaw a technical advisory committee (TAC) to provide guidance and support to the UNDP project implementation team. TAC membership comprised representatives of federal and regional State ministries dealing with water resource management and climate change/environmental and DRM-related issues, experts from the FAO-SWALIM project, as well as specialists from a number of other related projects (IGAD, Red Cross, AfDB, GWP, donors). In addition, there was a State-level Committee which consisted of a technical focal point representing each member state, as well as representatives from relevant government stakeholder entities and NGOs/CBOs. The State-level Committee was complemented by a forum of implementing partner (IP) agencies.

The organizational structure outlined in the chart below represents the governance and management hierarchy for the project during its implementation. At the top, the Project Board served as the primary decision-making body, comprising three key entities: the Senior Supplier, represented by the UNDP Regional Technical Advisor (RTA); the Executive, which was the UNDP Somalia Country Director; and the Senior Beneficiaries, represented by the GEF Focal Point. The board oversaw the project to ensure alignment with its strategic objectives. Supporting the board was the Project Assurance function, which was managed by the Head of Program Oversight and Quality Assurance. This role ensured that the project's processes, outputs, and outcomes met established quality standards.

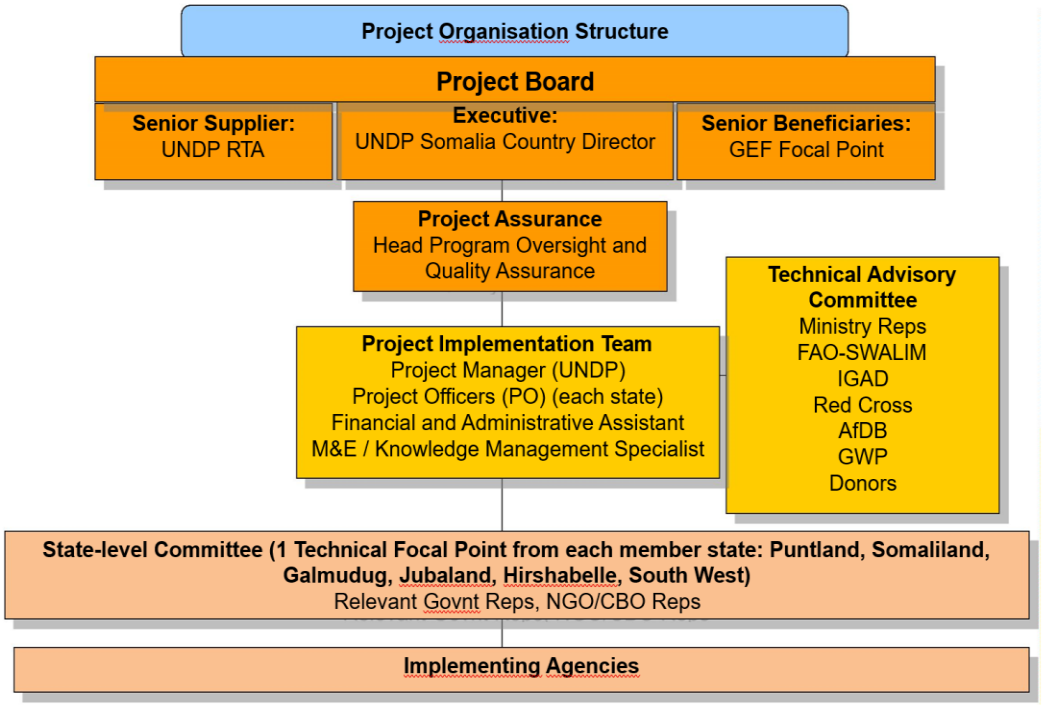
The Project Implementation Team was responsible for the day-to-day management and execution of project activities. It was led by the Project Manager (UNDP) and included Project Officers for each state, a Financial and Administrative Assistant, and a specialist in Monitoring, Evaluation, and Knowledge Management. This team worked to translate the project's goals into actionable activities. To provide technical guidance, a Technical Advisory Committee had been established. This committee included representatives from various institutions, such as ministries, FAO-SWALIM, IGAD, the Red Cross, AfDB, GWP, and donors. Their expertise ensured that the project benefited from a wide range of technical inputs and knowledge-sharing.

At the state level, a State-level Committee included one Technical Focal Point from each member state—Puntland, Somaliland, Galmudug, Jubaland, Hirshabelle, and South West. This committee incorporated representatives from relevant government bodies, NGOs, and community-based organizations (CBOs) to ensure localized input and representation. In general, the cooperation and coordination between central state and regional state level progressed smoothly. However, the work of the committee as well as related project advancement were negatively affected for some months by political tensions between the central level and a specific Regional State. In the larger scheme of things, however, these tensions which were eventually successfully ironed out were relatively negligible.

Finally, implementing agencies were positioned at the base of the structure, executing specific project activities on the ground in alignment with the strategic direction provided by the higher levels of the

organizational hierarchy. This tier ensured that the project delivered results effectively across all targeted regions. The organizational framework was designed to balance strategic oversight with technical expertise and local-level implementation to ensure successful delivery of planned results during the project's implementation period.

Figure 2: Project Management Structure



(Source: p. 85, Prodoc)

South-South and Triangular Cooperation

Another strength of the project consisted of its extensive network of partners in the Southern hemisphere, for example they provided technical and awareness programs, capacity buildings this had led to more effective and sustainable water management practices in Somalia. The following list provides an overview of the South-South partners and relevant details describing the type of partnership support they provided, respectively.

Table 9: South-South and Triangular Cooperations

Partner Entity / Project	Type of Cooperation Support provided
GWP	Design support for developing IWRM Strategy and related trainings
FAO SWALIM	Preparation of a groundwater action plan and other studies to inform groundwater extraction interventions in LDCF2
IGAD Climate Prediction and Applications Centre (ICPAC)	Trainings for forecasting for the newly established NHMS and decentralized agencies (DRM, EWS/CI)
UN Economic Commission for Africa (ECA) Africa Policy Center	Support to engage Somalia in climate change negotiations on a global level

Red Cross Red Crescent	Support for alert dissemination
PROSCO (charcoal-focused initiative)	Support with reforestation efforts
Economics of Land Degradation	Support for reforestation efforts and sustainable water resource planning
Agroforestry Center in Nairobi	Support for reforestation and soft revegetation interventions that will reduce erosion and increase groundwater infiltration
Kenya Forestry Research Institute (KEFRI)	Trainings were already provided by KAFRI on adaptation technologies and best practices on CCA and will continue to be provided
Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)	Trainings for forecasting and early warnings for the newly established NHMS and decentralized agencies (DRM, EWS/CI)
Kenya Meteorological Service	Trainings for forecasting and early warnings for the newly established NHMS and decentralized agencies (DRM, EWS/CI)
IGAD's Hydrological Cycle Observing System (HYCOS) project under the In-land Water Resource Management Programme (INWRMP)	Support for hydrological monitoring and data exchange
Trickleup.org	Support to ensure inclusion of the most vulnerable to advance their economic and social well-being via sustainable water management, access to early warnings and diversification of agro-pastoral livelihoods

(Source: Prodoc, p. 45)

Other than the extensive consultations with State and regional State level entities during policy and coordination fora, as well as numerous design phase consultations at project site level with concerned communities, a plethora of bilateral and multilateral stakeholder consultations were conducted during the project design stage to collect information and feedback, confirm costs and management arrangements etc. In addition, during the implementation phase, some of the key activities involved close collaboration with partners.

For example, a comprehensive joint study was carried out in partnership with the World Bank funded Somalia Crisis Recovery Project (SCRP), to inform the drafting of the Basin Diagnostic and Strategic Action Plan for the Juba Basin along with the preparation of a priority project. Moreover, the project collaborated with the Federal Ministry of Water Resources and GIZ to support feasibility studies on the projected River Basin Management Authorities (RBMAs) for the Juba and Shabelle rivers. In this context, the complexity of regional water management issues thwarted progress with regards to the planned RBMAs, in both cases. However, the opposing factors were and are likely to remain well beyond the reach of the project due to their geo-strategic nature (River nile water rights debate between Ethiopia, Egypt and other riparian stakeholder countries etc.).

While this work was carried out under Outcome 1, a key partnership under Outcome 2 included the implementation of an IWRM master's degree program at Somalia National University as key academic partner, apart from the partnership with TVET institutions for hydro-meteorological training. Under Outcome 3, community level consultations served to identify suitable IPs for project implementation as well as the continuation of project activities after the UNDP-implemented LDCF2's project life cycle. The consultations ensured project alignment with national policies and the needs and preferences of agro-pastoralist communities. This ensured buy-in and ownership.

The LCDF II project supported a number of key initiatives to improve water governance and management practices in line with the first-ever, gender-sensitive national integrated water resources strategy ("National Water Resources Strategy", or NWRS 2021-25): (a.) The Somalia Water Sector Coordination Facility (WSCF) was launched by MOEWR in September 2022 to serve as platform for sector-wide coordination and collaboration; (b.) In March 2023, the government launched the Water Sector Development Forum as a high-level platform for stakeholder dialogue and sector advancement. An Integrated Water Sector Development Task Force Meeting was held in May 2023; (c.) In July 2024, a Water Sector coordination meeting was organized to strategize on integrated development within the water sector.

On the donor side, the discussions in the various coordination fora has sparked interest among donors (including the Somalia Joint Funds (SJF), the World Bank, AFDB, Gulf States) to fund follow-up projects such as i. Mobilize investment pipelines for scale up integrated water sector development (2023-2028); ii. Next Generation Programme for Sustainable Charcoal Reduction and Alternative Livelihoods (PROSCAL II (2024-2028); iii. Blue Invest (2024-2028); iv. Jowhar Off Stream project; and v. Deep ground Water Development project.

Gender Dimension

The IWRM project's stakeholder participation strategy prioritized inclusivity and representation, ensuring that diverse groups, particularly women and marginalized populations, were actively engaged. Gender considerations were integrated into stakeholder engagement processes at both institutional and community levels. Gender-specific stakeholder participation included the following dimensions:

1. Women's Inclusion in Governance Structures
    - The project established water management committees in targeted communities, with a mandated minimum of 30% female representation. These quotas aimed to elevate women's voices in decision-making processes and ensure gender-sensitive approaches to water resource management.
    - Women members of these committees were trained in water governance, conflict resolution, and technical aspects of water infrastructure maintenance. This not only improved their leadership skills but also increased their participation in traditionally male-dominated spheres.
2. Capacity Building for Women
    - Over 40% of training beneficiaries on Integrated Water Resources Management (IWRM) principles were women, exceeding the project's initial target. Training sessions focused on enhancing women's knowledge in sustainable water use, climate resilience practices, and livelihood diversification (e.g., fodder production and dairy management).
3. Engagement of Women in Consultations and Planning
    - During community consultations, efforts were made to ensure that women, particularly those from vulnerable groups such as female-headed households and PwDs, had the opportunity to express their priorities and concerns. This was achieved by organizing women-only focus groups in culturally sensitive settings to encourage open participation.

Challenges and lessons learned in terms of gender engagement comprised the following aspects:

1. Cultural and Structural Barriers:

- Despite targeted efforts, women's participation remained constrained in some regions due to socio-cultural norms limiting their roles in public decision-making. The project addressed this by engaging local leaders and conducting awareness campaigns to advocate for women's inclusion.

2. Sustainability of Women's Leadership:
    - While initial participation of women in water governance was promising, sustaining their involvement beyond the project cycle requires ongoing mentorship and support. Strengthening institutional mechanisms to embed gender-sensitive policies is critical for long-term success.

Moreover, the project fostered partnerships with organizations experienced in gender mainstreaming to enhance its approach:

1. Collaboration with Women-Led Organizations:
    - Local women-led NGOs and CBOs played a critical role in mobilizing women participants and ensuring that gender considerations were embedded in project activities.
2. Engagement with Government Stakeholders:
    - The project worked with the Ministry of Women and Human Rights Development to align project strategies with Somalia's gender equity policies and SDG 5 (Gender Equality).
3. International Partners' Support:
    - The UNDP Gender Team provided technical assistance for integrating gender perspectives into project design, implementation, and monitoring frameworks.

In summary, the project's approach to stakeholder participation and partnerships demonstrated a strong commitment to gender inclusivity. While significant progress was made in enhancing women's roles in water governance and capacity building, addressing socio-cultural barriers and ensuring the sustainability of these gains remain essential priorities for future interventions.

3.2.3 Project Finance and Co-finance

While the original project budget had amounted to USD 10,331,000 (GEF Trust Fund/LDCF: USD 8,831,000; UNDP TRAC: USD 1,500,000) the actual project expenditure quoted by the TOR for late August 2024 was as follows: USD 12,144,089.40 (GEF Trust Fund/LDCF: UNDP TRAC: USD 4,903,917.19). Meanwhile, according to the PIR 2024, by July 31, 2024 a cumulative disbursement of USD 7,756,604 had been reached which corresponded to almost 88% of the GEF Trust Fund/LDCF grant amount of USD 8,831,000.

Co-financing reached an impressive total of USD 69,744,000, that is almost seven times as much as the original budget including TRAC resources, or roughly six times as much as the actual expenditure counting GEF base funding and, in addition, the TRAC component. These almost USD 70m in co-financing resources mobilized represent almost thirteen times the original amount of the GEF Trust Fund/LDCF grant amount of USD 8,831,000.

These figures are a testament to the inherent synergies that made the IWRM project a very attractive programmatic anchor for donors. Co-financing means parallel funding commitments by donors to implement similar initiatives, in this case mostly in and around the project target areas. Therefore, in essence, co-financing funds generated are catalytic or replication effects.

Table 10: Co-Financing

Sources of Co-financing	Name of Co-financer	Type of Co-financing	Co-financing amount confirmed at CEO Endorsement (US$)
In-kind contribution	Ministry of Energy and Water Resources – Federal Somalia	Recurrent Expenditures	8,000,000
Parallel Co-financing	EU	Investment mobilised	60,144,000
Parallel Co-financing	GWP	Investment mobilised	100,000
Cash contribution	UNDP	Investment mobilised	1,500,000
Parallel Co-financing	UNICEF	Investment mobilised	-
Parallel Co-financing	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Investment mobilised	-
TOTAL			**69,744,000**

86% of the co-financing is underwritten by the EU, whereas the second largest contributor in terms of value is the federal MEWR at 11.5%. However, it should be noted that the Ministry's contribution came in-kind, rather than cash.

3.2.4 Monitoring & Evaluation: design at entry, implementation, and overall assessment of M&E

The M&E design logic of the project consisted of a top level tier of CPD indicators linked to UNSF Strategic Priority number 4 (Social Development) as overarching objective, at the project's impact level. At project objective level, the project had a number of key indicators which were complemented by sub-sets of key performance indicators for each project outcome area. More specifically, the project contributed to the UNSF SP4/Social Development via the related SF and CPD Outcome 4.2. ("By 2025, the number of people impacted by climate change, natural disasters and environmental degradation reduced") and CPD Output 4.2 ("People Centred environment & climate smart strategies are put in place for sustainable natural resources management (NRM), including water, forests, rangelands, arable lands, and ocean fisheries").

The respective indicators were CPD Outcome 4.2.1 Indicator: "Number/proportion of people impacted by climate change, natural disasters an environmental degradation" and "CPD Output Indicator: 4.2.1: Enhanced capacities of government institutions and communities at federal, state, local levels to mitigate and adapt to climate change". For these indicators, the project played a contributory role. The were four indicators at the level of the Project Objective, whereas for each one of the three project outcomes, there were three KPIs.

In the AWPs, another additional tier for Gender and KM products was added to cover UNDP project-internal operations. In the 2023 AWP, one of the related indicators was "% of staff time Gender mainstreaming,

knowledge management and M&E for the overall project in its reporting requirements to the Program Oversight and QA Unit". It should also be mentioned that for the annual work plans, output indicators sometimes reiterated the lower level (Prodoc "Outcome" indicators) by breaking targets down to the yearly timeframe. In some cases, AWPs also had specific output indicators that did not replicate Prodoc Outcome indicators, but honed in on specific results contributing to said Outcomes through priority or key actions for the specific year in question.

For example, the 2023 AWP, while using the Prodoc's official three Outcome-level indicators for the first pillar (institutional/policy level support) also covered two additional indicators, namely "Number of people trained to prioritize, implement, monitor and evaluate IWRM" and "Number of institutions capacitated to implement IWRM interventions", thus bringing the quantity of indicators for this outcome from the Prodoc's three to a total number of five for annual monitoring and reporting. Meanwhile, the indicators used for the final internal project reporting and the TE purpose were identical in number and formulation.

In addition, data for a number of higher-level indicators (like, for instance, the CPD indicators) originated from external sources. Regular monitoring and inspection visits were carried out and detailed monitoring data was collected on a regular basis. Furthermore, the project also employed external third party monitoring experts as external contractors to carry out project site inspections. For example, a Nairobi-based firm carried out several field level monitoring visits in Puntland and Somaliland, from 2021-2023, and produced three reports.

The only critical remark would be that the M&E framework did not include measures for short-term socioeconomic impact (peacebuilding, stability, socioeconomic boost etc. provided through the project), be it through qualitative or narrative approaches. On the other hand, some of these aspects were covered through the TE through the collection of anecdotal, narrative data.

The Monitoring and Evaluation (M&E) framework of the IWRM project was designed to track progress, measure results, and ensure accountability across project components. It followed standard UNDP and GEF requirements, incorporating a results-based management (RBM) approach to enhance project oversight and learning. The M&E plan included a detailed budget allocation to cover key activities, such as baseline data collection, periodic progress reviews, midterm and terminal evaluations, and reporting. While these provisions demonstrated an awareness of the importance of M&E, certain limitations were noted regarding the budget line's adequacy and the extent regading integration of cross-cutting issues.

Although the M&E budget covered fundamental activities, it was constrained in addressing additional or unforeseen needs, such as adaptive learning workshops and expanding data disaggregation for cross-cutting issues. Furthermore, the allocated resources were insufficient to fully capture data on gender, inclusion, and climate-specific outcomes, limiting the project's ability to provide granular insights into these areas. The implementation of M&E activities adhered to the plan, with periodic progress reports, a Midterm Review (MTR), and field monitoring visits conducted as scheduled. Key achievements included: i.) the design of gender-sensitive indicators during the MTR to enhance monitoring of cross-cutting issues; ii.) regular stakeholder engagement through progress reporting and consultations to align M&E findings with project adjustments.

In general, it can be said that the M&E system effectively supported accountability and learning. However, challenges such as the limited budget for gender-disaggregated data and the need for enhanced real-time monitoring tools constrained its potential impact. The final M&E framework required supplementary resources to ensure comprehensive documentation of results, particularly for marginalized groups and vulnerable ecosystems. Related evidence sources consisted of an M&E budget allocation and activities as per the Prodc, the MTR report that identified budgetary constraints and recommended additional gender-focused indicators, and project progress reports which highlighted the implementation of planned M&E activities and related challenges.

To conclude, the M&E design at entry, implementation, and overall assessment of M&E including the ToC design and risk management are all rated as satisfactory (5).

3.2.5 UNDP implementation/oversight and Implementing Partner execution, overall project implementation/execution, coordination, and operational issues

In terms of the overall project execution, the IWRM employed the DIM (direct implementation) approach. The project management approach included the provision of general technical oversight and management by the UNDP Somalia Country Office in Mogadishu. The Ministries of Water and Environment at federal and regional State level were the key interlocutors and institutional partners who provided in-kind support through office space. The project had a local project office in each one of the six participating regional member states.

Over the years, three HACT assessments were produced by an international auditor. A yearly donor report was prepared in the form of the official annual project implementation report, or PIR. The project board signed a total of 31 different letters of agreement or risk mitigation plans with federal and regional State authorities (including Somaliland and Puntland), in the period 2020-2024. During the project cycle, 17 IP progress reports and the same number of field visit reports were produced. For every single year of implementation, a specific annual work plan along with its M&E plan was designed and implemented.

Detailed minutes were prepared for project level technical meetings and board meetings including the LPAC at the very beginning of the implementation period. The design of the project outcome areas with their result configurations/chains were based on a detailed critical analysis of existing technical, operational and budgetary barriers, as well as alternative options with their respective pros and cons. The best scenario, deemed the most effective, efficient and sustainable was selected in the interest of resilience, while the alternatives that were considered less promising were rejected.

In terms of major operational issues, Covid-19 slowed down the general pace of implementation and imposed the virtual format on many coordination meetings, consultations, and trainings. Also, the insecurity along the access road to Baidoa impeded speedy implementation and required reverting to air transport for equipment and personnel, in the interest of timely project advancement. General progress in execution hit some snags when tensions arose between Somaliland and the Federal Government, in particular. However, these issues were made transparent and technical response were openly negotiated (as reflected, e.g., by the minutes of the project technical meeting held on December 22, 2021).

With regards to general project operations and oversight it is worth mentioning that there was a clear firewall in place between those charged with monitoring project activities and project oversight. While the KM / M&E expert, gender expert and Finance/Admin expert were involved in day-to-day activities, the Program Oversight and QA Unit within the UNDP CO carries out routine quality spot checks by analyzing project reports on a periodic basis, and reporting back to the GEF Secretariat on progress. Thereby, a stop-gap control instance is in place that intervenes in case of any quality concerns related to the monitoring data and related analytical reports produced and shared with the donor(s).

The stakeholder engagement plan provided a road map for navigating the various partnership arrangements. Detailed procurement plans were produced to support purchasing the inputs and services required for timely project execution. The project board provided frequent updates in terms of revising targets, related budgets, revising responsibilities and the distribution of tasks to ensure that the monitoring frameworks as well as project risk logs remained relevant. The implementation of the project aligned with the established procedures of UNDP/GEF/LDCF and involved close coordination with the project team and stakeholders. Regular technical reviews and oversight were conducted to maintain the required standards.

The overall echo from among stakeholders regarding the added value and operational execution of the project was positive to very positive. The careful selection of IPs and continuous vetting and capacity development of their staff in view of a future hand-over was part and parcel of the project design and implementation, for the very beginning. Stakeholder consultations including beneficiary level consultations at project sites ensured local buy-in and ownership of the respective communities. The delays that occurred due to Covid-19 and some political issues between the Federal Government and some regional member states cannot be attributed to any serious failures or oversights on the part of the project. Likewise, the sluggish progress in terms of setting up River Basin Management Authorities is not imputable to the project. Therefore, the related performance for all these dimensions merits, once again, a strong mark of 5 ("satisfactory").

3.2.6 Risk Management, including Social and Environmental Standards (Safeguards)

As already discussed further above, the Prodoc's risk matrix consisted of seven items, five of which were assessed as medium level risks with the other two at low risk level. Medium level risks listed consisted of the following: i. Low level of cooperation between executing institutions due to political divisions and the existence of distinct states in Somalia; ii. Security risks; iii. Lack of nationally available expertise and human resources, iv. Increase in the frequency of flood events and continued drought, v. Insufficient and technical operational capacity on all levels. At low risk level, the two items were; i. Limited climate monitoring inhibits forecasting capabilities; and ii. Targeted agropastoralists are skeptical and unwilling to exploit livestock products.

The risk assessment proved correct in that the only issues that did occur were covered in the medium risk category. The problems that did occur in a few cases included; (a.) brief coordination squabbles involving one particular regional State, (b.) security concerns especially in Baidoa that prevented a seamless project implementation due to insecurity (terrorist/criminal threat) along the major access road, and (c.) lacking capacity to repair solar equipment on a timely basis.

In terms of risk management, the first risk of tensions between constituent regional governments and/or the federal government did materialize for certain periods. This did not play a major role, however, since only occurring in a few cases as a passing phenomenon. The tensions disappeared again after a moment since the government composition in the concerned regional State changed, again. Other than that, the second risk, namely insecurity, also materialized, but yet again this only happened in a limited number of districts, more specifically in Baidoa where insecurity along the major road leading to the project site compromised the implementation process by hindering transport of inputs (equipment, material, tools; and staff) to the project site. The risk was successfully thwarted by switching from road level transport by car to air-borne transport by plane. The detrimental effect on time lost and the cost factor were relatively minor if not negligible in the broader scheme of things.

Among the remaining risks, the one referring to inadequately trained or insufficient numbers of trained manpower for implementation and operational purposes only played a role regarding required repair jobs of solar pump equipment. A lack of related expertise and skills was reported in several locations visited during field level data collection. The risk management response was not always optimal pointing towards a need to ramp up the know-how base in this area. This could be addressed through hands-on training for minor repair needs. On the other hand, this presents an opportunity for further investment in the sense of training up the first generation of decentralized solar SME entrepreneurs within regional centers to cater for the rural/district level. This would obviously go beyond just ensuring maintenance for project solar pumps if and when falling into a state of disrepair but could address the overall demand for photovoltaic solar power installation and maintenance.

Socio-environmental do no harm-type risk assessments are a standard of any kind of UN intervention and were thus applied during the conception of the project features, as well as throughout the operational

implementation. In fact, the inclusion of project site communities through extensive consultations during the planning phase prior to starting any construction works, that is well ahead of actual implementation of concrete activities, allowed to customize the design features of the infrastructure and the governance bodies. This inclusive, participatory approach was the default standard. It allowed to address specific needs, expectations and aspirations of the respective beneficiary community.

The fourth risk which is about environmental factors refers to an excessive amount of water to be managed as a risk, or to the contrary, continued absence of water due to drought(s), as a risk factor, did play a role in a number of project locations that, while having received infrastructure and training support, until now have not been able to benefit from these investments. Due to the continuous absence of rain water, let alone floods in those locations, the infrastructure has so far remained virtually empty and cannot be put to any productive use at a meaningful level. That the risk assessment did not foresee a global pandemic as macro-environmental risk factor affecting all aspects of governance, socioeconomic, operational and logistical dimensions does not count as a reproach given the scale and unpredictability of Covid-19's occurrence and impact.

While non-inclusion of LNOB categories did not pertain to the category of risk factors, this is a social standard that is supposed to be mainstreamed into UNDP-GEF activities. The LDCF II/GEF project addressed this issue by instituting a minimum quota for female project beneficiaries including trainings and project related governance entities among project sites. This included a minimum of 30% for female water committee members that was observed in all locations.

Likewise, the inclusion of persons with disabilities was mainstreamed into the project's design consultations to ensure barrier-free accessibility of water infrastructure, and allow for inclusive representation among the water management governance bodies that were set up as part of the IWRM operational backbone for running infrastructure oversight including administrative tasks such as the distribution of water, setting up and managing financial contribution scheme, detecting and organizing necessary maintenance and repair works etc. In one location, a PwD individual was appointed as the water committee's chairperson.

In view of the largely positive assessment detailed above, the project has earned a "satisfactory" overall rating for risk management practice.

3.2 Project Results and Impact

Detailed anonymized evidence sorted by evaluation criteria and related key evaluation questions is presented in Annex 5.16.

3.2.1 Effectiveness - Progress towards objective and expected outcomes

The following tables provide a graphic overview of final progress against set targets, per indicator. Whereas the first section (A.) shows the top tier of objective-level indicators, the subsequent sections (B.-D.) show the three Outcome level indicator sub-sets. The tables are a simplified version of the logframe's M&E matrix, they only show the basic information necessary to map the overall progress from the mid-term assessment to the final rating of the TE. Brief accounts of the activities and results achieved conclude every sub-section. A comprehensive version including detailed progress data in narrative form can be found in the related annex 5.9.

The project's overall progress across both objective-level and outcome-level indicators is satisfactory to highly satisfactory. While some challenges remain—particularly in establishing RBMAs—all other targets were fully met and many were significantly exceeded. The project has made significant strides in improving

water resource management, enhancing community resilience, and building institutional capacities in Somalia.

Analysis of Objective-level Indicators

Table 11: Objective Level Indicators

Result Level	Indicator	MT Progress Rating	Final Progress Rating vs. Final Target	Achievement Rating[7] (in parentheses: Midterm Rating)
Objective: Reinforced technical and operational capacities at federal, state and local levels to manage water resources sustainably to build the climate resilience of agro-pastoralists in Somalia	**Indicator 1a**: Number of RBMAs (River Basin Management Authorities) established			Satisfactory (5); whereas one KPI significantly exceeded its target, two others at least fully met if not exceeded their respective target; the reason for the 1st indicator not having met its target was actually beyond the scope of the project (statement of result and indicator not SMART) (MTE: Moderately Satisfactory)
	Indicator 1b: Number of coordination workshops at the national and regional level building capacities on IWRM			
	Indicator 2: Number of direct project beneficiaries that have improved water management and agro-pastoral production capacities			
	Indicator 3: Number of policymakers and planners at national, state and district levels with awareness of climate-induced impacts on water resources and Integrated Water Resource Management (IWRM) principles			

The overall objective was to strengthen the technical and operational capacities at federal, state, and local levels for sustainable water resource management, thus enhancing the climate resilience of agro-pastoralists in Somalia. The objective-level indicators show mixed success.

Objective-level Indicator 1a: Establishment of River Basin Management Authorities (RBMAs) - The baseline indicates that no RBMAs existed at the project's inception. The target was to establish two RBMAs for the Juba and Shabelle rivers. Progress has been made through strategic action plans and collaboration with stakeholders, including cross-border cooperation with Ethiopia and Kenya. However, despite institutional support, the project's target to have established two RBMAs by the end of the project was still far from being achieved. Essentially, the design of this indicator was not realistic since the wording implies exclusive responsibility for whether or not the RBMAs would be created.

In reality, however, there are geo-political and strategic dimensions that also came into play which caused significant bottlenecks and thus, significant delays. Nonetheless, crucial steps have been taken to

7 Rating Scale: HS, S, MS, MU, U, HU

institutionalize river basin management through technical and operational support. Efforts included hydro-climatic modeling for the Juba and Shebelle basins and collaborative work with international partners including the WB and giz, for respective RBMA planning support including feasibility studies. The project also faced delays due to insufficient coordination between Somalia and neighboring countries like Ethiopia and Kenya.

Objective-level Indicator 1b: Coordination workshops on Integrated Water Resources Management (IWRM) - The baseline revealed limited knowledge of IWRM. The target was to conduct four workshops, which was fully achieved. The project held multiple high-level coordination meetings and forums, significantly advancing water governance and attracting investment from international bodies like the World Bank and African Development Bank. As a result, the goal was fully met.

Objective-level Indicator 2: Agro-pastoralists benefiting from improved water management and diversified livelihoods - The baseline showed no resilience among targeted agro-pastoralists. The target was to improve the livelihoods of 296,000 agro-pastoralists. By 2024, the project had exceeded its target by 1.18%, benefiting over 299,500 individuals (52% women). The project successfully enhanced early warning systems, water conservation, and market access, providing significant livelihood improvements. This indicator was exceeded.

Objective-level Indicator 3: Policymakers and planners trained on IWRM principles - The baseline indicated no prior training. The target was to train 150 policymakers and planners by 2024, with 30% participation by women. The project exceeded this goal, training 1,310 individuals, 40% of whom were women. This represents a significant achievement in capacity-building efforts. The target was very significantly exceeded.

Overall, the progress for objective-level indicators can be rated as “satisfactory” (5). While the establishment of RBMAs was not achieved, all other targets were either met or exceeded. The efforts to enhance the technical capacities of stakeholders and improve agro-pastoral resilience were highly effective, with significant impact on water governance and community livelihoods.

Analysis of Outcome-Level Indicators

Table 12: Outcome 1 Indicators

Result Level	Indicator	MT Progress Rating	Final Progress Rating vs. Final Target	Achievement Rating[8] (in parentheses: Midterm Rating)
Outcome 1: National water resource management policy establishing clear national and district responsibilities	**Indicator 1:** A National IWRM Strategy is developed supporting a decentralized approach to water governance and that is gender-sensitive and integrates traditional, customary water resources management practices and governs water extraction / access rights, water conservation, water quality, and pro-poor water supply			Moderately satisfactory to satisfactory (4-5) since two of three KPI targets were met with the third one partially met

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	Indicator 2: Enhanced curricula and programmes at educational and vocational institutes on water resource management and reflective of Somalia's gender dynamics			(MTE: Moderately Satisfactory)
	Indicator 3: Enhanced water quality (WQ) analysis equipment and trained technicians in 5 states (Puntland, Hirshabelle, Jubaland, Galmudug and Southwest states)			

Outcome 1: National Water Resource Management Policy and Decentralized Governance

Indicator 1: Development of a National Integrated Water Resources Management (IWRM) Strategy - At the baseline, Somalia lacked an IWRM strategy at both national and state levels, despite the 2013 National Adaptation Programme of Action (NAPA) identifying this as a priority. The goal was to develop a decentralized, gender-sensitive IWRM strategy, particularly for marginalized groups like pastoralists. By 2024, this target was fully achieved. The strategy has been endorsed and is aligned with national goals for sustainable water governance. Additional accomplishments include the creation of the National Water Management Task Force and the National Water Coordination Facility, which are operational. The strategy integrates customary water management practices, pro-poor water supply, and ensures gender inclusivity. This indicator was fully met.

Indicator 2: Enhanced curricula and programs at educational and vocational institutions on water resource management - The baseline showed a severe lack of technical expertise in Somalia to support the water sector. Under the project, a national curriculum was to be developed at six universities and six vocational institutions (TVETs). By 2024, progress was made with the Somali National University (SNU), where an advanced water management curriculum was adopted, benefiting 35 students (30% women). A needs assessment for vocational training centers was conducted, leading to the establishment of TVETs for water management. However, the plan to collaborate with UNESCO-IHE for a high-level IWRM course faced significant challenges, including budget and logistical issues, which hindered implementation. As a result, local outsourcing for IWRM courses was planned. This indicator was partially met.

Indicator 3: Establishment of Water Quality (WQ) Labs and trained technicians in 5 states - The baseline showed the absence of Water Quality labs in Puntland, Jubaland, Hirshabelle, Southwest, and Galmudug states. The target was to establish labs in each of these states and train 25 technicians (with 30% women participation). By 2024, all five labs were established and fully operational, staffed by five trained technicians each, with 30% women participation. These labs are crucial for ensuring water quality, particularly in agro-pastoral communities, enhancing their resilience to climate-related water quality issues. This indicator was fully met.

Conclusion for Outcome 1 : Progress on Outcome 1 was satisfactory to highly satisfactory. Two of the three key indicators were fully met, particularly the development of the National IWRM Strategy and the establishment of water quality labs. The partial achievement in curricula development and vocational training indicates room for improvement in enhancing educational and technical capacity in water management.

Table 13: Outcome 2 Indicators

Result Level	Indicator	MT Progress Rating	Final Progress Rating vs. Final Target	Achievement Rating[9] (in parentheses: Midterm Rating)
Outcome 2: Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood prone areas	**Indicator 1a:** Procurement and installation of river gauges, flow meters and rain gauges to improve groundwater and surface water data collection in the ASALs and in the Juba and Shabelle river basins			Satisfactory to highly satisfactory (5-6) since all targets were fully met by the end of the project cycle with the 2nd indicator significantly exceeding the planned target (MTE: Moderately Unsatisfactory)
	Indicator 1b: National Groundwater Development Action Plan that supports sustainable and cost-effective groundwater extraction			
	Indicator 2: Number of people/geographical area with access to improved climate-related early warning information			
	Indicator 3: Establishment of a National Hydro-Meteorological Service (NHMS)			

Outcome 2: Technology Transfer for Enhanced Climate Risk Monitoring

Indicator 1a: Procurement and installation of river gauges, flow meters, and rain gauges - At the baseline, the collapse of Somalia's climate monitoring network left major gaps in data collection, particularly for groundwater. The project aimed to procure and install 13 automatic weather stations (AWS), 10 manual rain gauges, 9 synoptic stations, and 4 radar river level sensors. By 2024, the project had exceeded expectations, delivering all equipment and providing four years of operational and maintenance (O&M) support. Training for engineers and technicians was completed, with Standard Operating Procedures (SOPs) in place. This has enabled the provision of early warnings to 525,000 agro-pastoralists (52% women), surpassing the target by 10.5%. This indicator was exceeded.

Indicator 1b: Development of a National Groundwater Development Action Plan - The baseline revealed insufficient knowledge of groundwater resources, particularly in southern Somalia. The target was to develop a comprehensive Groundwater Development Action Plan to identify borehole sites and assess risks. By 2024, the plan had been completed, with the project supporting the Deep Groundwater Development project approved by the Somalia Joint Funds. The action plan includes a detailed assessment of groundwater sites, costs, and feasibility for pilot deep boreholes. This indicator was fully met.

Indicator 2: Access to improved early warning information for droughts and floods - The baseline showed that agro-pastoralists had no access to early warning alerts, despite efforts by other initiatives like FAO SWALIM and DIGNIIN. The project aimed to provide early warning alerts to 50,000 agro-pastoralists (50% women). By 2024, the project exceeded this target, reaching over 525,000 agro-pastoralists (52% women) with improved early warning systems. This enabled better preparedness for extreme weather events, significantly enhancing resilience. This indicator was exceeded.

9 Rating Scale: HS, S, MS, MU, U, HU

Indicator 3: Establishment of a National Hydro-Meteorological Service (NHMS) - The baseline highlighted the lack of technical and institutional capacity in the existing NHMS department to collect and disseminate hydrological data. By 2024, the project successfully established and capacitated the NHMS, with 30% women participation. The NHMS is now fully operational and responsible for weather and climate forecasting across Somalia. This has greatly improved the country's ability to manage and respond to climatic events. This indicator was fully met.

Conclusion for Outcome 2: Outcome 2 indicators were highly satisfactory, with most targets either fully achieved or exceeded. The establishment of climate risk monitoring infrastructure and the NHMS has greatly enhanced Somalia's ability to manage climate-induced risks. The project's impact on improving early warning dissemination has far exceeded expectations.

Table 14: Outcome 3 Indicators

Result Level	Indicator	MT Progress Rating	Final Progress Rating vs. Final Target	Achievement Rating (in parentheses: Midterm Rating)
Outcome 3: Improved water management and livelihood diversification for agro-pastoralists	**Indicator 1**: Number and type of physical livelihood assets constructed to reduce the impacts of floods and droughts			Highly satisfactory (6) given that two of three KPIs significantly overachieved (MTE: Moderately Satisfactory)
	Indicator 2: Number of trainer of trainers (TOTs) with reinforced capacities to disseminate and sensitize communities on exploitation of the mild and hide value chains (disaggregated by gender)			
	Indicator 3: Number of hectares of rangeland revegetated and managed sustainably under a conservation scheme			

Outcome 3: Improved Water Management and Livelihood Diversification for Agro-pastoralists

Indicator 1: Number and type of physical livelihood assets constructed - The baseline indicated a lack of climate-proofed infrastructure for water management and livelihood protection in target areas. The project targeted the construction of various infrastructures, including boreholes, sand dams, and reservoirs.[10] By 2024, the project exceeded its targets by 66%, constructing and rehabilitating 40 water infrastructures across Somalia, including boreholes, dams, and water catchments. These efforts have benefited over 111,200 households, 52% of which are women-headed. This indicator was highly exceeded.

[10] Link to pictures: https://drive.google.com/drive/folders/1y6SXtfX7D2TbTXLL7QOrwvTjqFTqa86f

Indicator 2: Training of Trainers (TOTs) for milk and hide value chains - The baseline showed no capacity within agro-pastoral communities to develop value chains like milk, meat, or hides. The target was to train 45 trainers, with 30% women participation. By 2024, the project exceeded its target, training over 1,260 community resource persons, 40% of whom were women. These trainings significantly improved value addition in livestock supply chains, particularly benefiting women. This indicator was exceeded.

Indicator 3: Hectares of rangeland rehabilitated and managed sustainably - The baseline indicated significant environmental degradation due to poor natural resource management, with a goal of rehabilitating 200 hectares of rangeland per state. By 2024, the project far surpassed this goal, rehabilitating 6,285 hectares (600 in Somaliland and 5,685 in Puntland), benefiting over 50,000 households. These efforts have greatly enhanced rangeland productivity and resilience to climate change. This indicator was highly exceeded.

Conclusion for Outcome 3: Outcome 3 indicators were highly satisfactory, with significant overachievement in infrastructure development, training, and rangeland rehabilitation. The project has greatly improved water management and diversified livelihoods for agro-pastoralists, particularly benefiting women-headed households.

3.3.2 Relevance

The GEF IWRM project demonstrates strong relevance across multiple levels—global environmental priorities, national development goals, and local needs—making it an essential initiative for Somalia's sustainable development. Its design aligned with the country's critical need for sustainable water resource management in the face of recurrent droughts, water scarcity, and climate variability. The project also contributed to international frameworks such as the Sustainable Development Goals (SDGs), particularly SDG 6 (Clean Water and Sanitation), SDG 13 (Climate Action), and SDG 5 (Gender Equality).

The project aligned with GEF's Integrated Water Resources Management (IWRM) focal area objectives by focusing on improving water governance, enhancing climate resilience, and integrating gender considerations. It addressed the GEF biodiversity and climate change focal areas by promoting the sustainable management of water resources, which is vital for the survival of both ecosystems and communities in drought-prone Somalia. The project's work in restoring rangelands and improving water quality contributed directly to biodiversity conservation, aligning with GEF's biodiversity focal area objectives. Overall, the project is relevant to the broader GEF goals of climate change mitigation and adaptation.

In terms of the project's relevance to Somalia's Environmental and Sustainable Development Objectives, it strongly supported Somalia's national priorities. The National Water Resources Strategy (NWRS) and Somalia's adaptation priorities under the National Adaptation Programme of Action (NAPA) emphasized the need for sustainable water management, particularly for vulnerable populations like agro-pastoralists.

By aiming to introduce the first-ever policy and action strategy for integrated water resource management, setting up or developing the capacity of relevant institutions such as the Ministry of Environment and Climate Change at federal level, through its efforts to set up RBMAs and strengthening DRM by setting up early warning systems etc. the project directly responded to the urgent need for water security, especially in areas prone to droughts and floods. It also aligned with the government's long-term strategies for environmental conservation, climate resilience, and sustainable agriculture.

In general, by providing proof-of-concept and addressing specific needs in project site communities, the project provided a comprehensive answer to the needs of agro-pastoral communities at both the local and regional levels. These communities are highly vulnerable to climate shocks, and the project's focus on improved water infrastructure, early warning systems, and diversified livelihoods directly benefits them. The construction of water harvesting infrastructures, the introduction of climate adaptation measures, and

the capacity-building programs for policymakers and community leaders have significantly enhanced the resilience of these communities, as reflected in the project's results. These interventions provide practical support to over 299,500 agro-pastoralists, the majority of whom are women, reflecting the relevance of the project to these vulnerable groups.

The project was internally coherent in its design, with well-structured components addressing various aspects of water management, such as policy development, capacity building, infrastructure improvement, and climate risk monitoring. The integration of gender considerations and the emphasis on participatory approaches at multiple levels (federal, state, and local) further strengthened its internal coherence. The project's theory of change was clear, focusing on building resilience by improving governance, technical capacity, and climate adaptation.

In terms of coherence and coordination with other UNDP projects, the IWRM project exhibited effective internal coherence through coordination with other UNDP initiatives, reinforcing its impact and ensuring synergy.[11] For instance, regarding linkages with UNDP's Climate Resilience and Recovery Programs, the IWRM project complemented UNDP's efforts under the Somalia Resilience Program (SomReP), which aims to build resilience to climate shocks in Somalia.[12] Shared objectives of enhancing water resource management and fostering community resilience led to collaborative activities such as joint capacity-building workshops and the use of integrated data systems.

The project also had synergies with Governance Programs, e.g., it was aligned with UNDP's governance programs by empowering local institutions and strengthening water governance structures. The establishment of inclusive water management committees complemented broader governance reforms supported by UNDP in Somalia. It also showed alignment and synergies with Gender Equality Initiatives.[13] Through its focus on gender-sensitive water governance, the IWRM project reinforced UNDP's ongoing work to promote gender equality under its gender equality strategy and support for SDG 5. These connections ensured that the IWRM project leveraged resources, avoided duplication, and contributed to a cohesive UNDP portfolio in Somalia.

Furthermore, the project was highly relevant to and well-coordinated with other donor-supported activities in Somalia. For example, the collaboration with the World Bank, African Development Bank, and Gulf States for integrated water sector development demonstrated the project's ability to align its goals with broader development initiatives. Additionally, partnerships with the FAO SWALIM initiative for early warning systems and the IGAD for transboundary water management show strong synergies with ongoing regional projects.

The GEF IWRM project offers valuable lessons for future projects. Its success in creating participatory, gender-sensitive water governance mechanisms demonstrates the importance of inclusivity in sustainable development. Moreover, the challenges faced, such as the delays in establishing RBMAs and difficulties with procurement, highlight the need for flexible project designs that can adapt to changing circumstances and political complexities. The project's ability to exceed its targets in areas like beneficiary outreach and infrastructure development offers insights into how similar projects can maximize impact with effective resource allocation.

The project successfully adopted a coordinated approach to gender mainstreaming, involving multiple stakeholders, including CSOs, NGOs, and academic institutions, in the process. The participatory workshops and policy development efforts included significant gender considerations, ensuring that women's voices

[11] FAO SWALIM (Somalia Water and Land Information Management): Website: FAO SWALIM

[12] UNDP Somalia Climate Resilience Projects: Highlights linkages with the Somalia Resilience Program (SomReP). Website: UNDP Somalia Resilience Programs

[13] UNDP Gender Equality Strategy: Demonstrates alignment with gender-related SDGs and UNDP's broader portfolio in Somalia. Website: UNDP Gender Equality Strategy

were part of the decision-making process. This participatory approach has strengthened the project's overall impact and contributed to a more inclusive water governance framework. Thus, the project made significant strides in advancing gender equality in water management. It ensured at least 30% women participation in key activities, such as the training of technicians and policymakers, and benefited women-headed households through improved access to water infrastructure.

This aligns with the government's broader goals of increasing women's participation in decision-making processes. Although there was no specific focus on the inclusion of individuals with disabilities within the project, its overall emphasis on inclusivity, particularly gender inclusivity, suggests a potential area for future improvement. Expanding the scope of the project to more explicitly include individuals with disabilities in water management and livelihood diversification activities could enhance its overall impact.

The project demonstrated flexibility and adaptability, particularly in responding to procurement delays and external political challenges. While some targets, like the establishment of RBMAs, were not fully achieved due to institutional complexities, the project adjusted by focusing on other areas, such as enhancing early warning systems and rangeland rehabilitation. This ability to shift focus based on changing circumstances highlights the robustness of the project design.

The project was effective in coordinating its activities with relevant development partners. Its partnerships with organizations such as the UNDP, GIZ, and the World Bank for water governance and capacity building demonstrate the strength of its collaborative efforts. This coordination has amplified the project's reach and enhanced its effectiveness in meeting its goals. The project has proved highly relevant to Somalia's environmental and development objectives, GEF focal areas, and the needs of local communities. It was internally coherent, responsive to changing circumstances, and well-coordinated with other donor initiatives. Its success in advancing gender equality and delivering practical benefits to agro-pastoralists and its alignment with broader global and national goals underscores its critical role in promoting sustainable development and climate resilience in Somalia.

The relevancy of the project garners the top mark (6 – highly relevant).

3.3.3 Efficiency

Efficient project design features

Efficiency is key in a context of pronounced scarcity and competition over limited resources. Other than limited funding or the scarcity or lack of continuous amounts of high quality water, this also includes limited availability of fertile land (illegal private land demarcations), limited availability of skilled labour etc. Somalia is facing increasing levels of climate unpredictability including inundations and flash floods as well as drought-induced water scarcity. The question of how the "liquid gold" which fresh water is also referred to, should be allocated and managed plays a central role in the quest how best to maximize social and economic benefits and ensuring sustainability.

The IWRM project was designed to promote capturing and stocking excess and rainwater for the purposes of rationalizing and optimizing water production, storage for future usage, actual utilization including water reuse and recycling, and investment in water projects. This included financial sustainability to build, operate and maintain the diverse projects and facilities required to improve water access and assure water quality and quantity over the long-term through cost recovery and payment systems.

Adaptive management played a significant role in ensuring resource use efficiency, particularly in the face of unforeseen challenges like the COVID-19 pandemic and political instability. These factors necessitated flexibility in the project's operational plans, such as adjusting logistical arrangements to ensure the

continuation of activities, including air travel for staff and equipment where road access was compromised. These adaptations, alongside the regular monitoring of risk logs, allowed the project to remain responsive and operational despite delays, contributing to efficient resource management.

The project's logical framework and work plans were essential management tools, guiding implementation and offering flexibility when needed. The project adhered to a results-based management approach, regularly revising work plans in response to evolving challenges, which ensured that activities stayed aligned with the overall goals. The framework allowed the project to navigate external disruptions effectively, maintaining a balance between planned outcomes and unforeseen adjustments. These plans, along with the regular updates from the Project Implementation Reports (PIRs), demonstrated that changes were timely and well-integrated into ongoing activities.

The project's staffing structure played a critical role in its implementation and overall efficiency. Strengths in staffing were the diverse staff expertise and capacity building efforts. The project employed a multidisciplinary team, including water engineers, gender specialists, environmental experts, and community mobilizers, ensuring that technical and cross-cutting issues were adequately addressed. Significant investments in training field staff enhanced their ability to deliver results in challenging conditions.

Staffing-related challenges included high staff turnover among field staff and technical specialists which disrupted continuity and led to delays in project implementation. There was also a somewhat inadequate staffing regarding more remote regions and thereby, related coverage of the most remote project sites. This created logistical challenges and affected timely delivery of activities in some locations. There was also an element of administrative overload in that the dual burden of technical and administrative tasks on key staff impacted their efficiency. Future projects could try to prioritize staff retention strategies, such as offering competitive compensation and creating robust knowledge transfer mechanisms.

Increasing the deployment of local staff in remote areas could improve efficiency and enhance community engagement. Also, contingency funds to manage unforeseen expenses and mitigate risks associated with exchange rate volatility might be an option for similar future interventions. A better balance in staffing levels across technical and administrative roles including a potential increase in the recruitment of local personnel to reduce turnover and logistical challenges might enhance general implementation capacity.

The project opted for integrated, long-term approaches that address water governance, climate monitoring, and community empowerment over short-term, piecemeal solutions. These approaches are more cost-efficient and sustainable in addressing the underlying barriers to effective water and climate management. The Prodoc included a detailed cost-efficiency analysis, discussing the barriers addressed and alternatives considered for each one the key results. Below follows a succinct overview of these barriers and alternative options considered (and rejected):

A. <u>Outcome 1:</u>

- Output 1.1 Capacity development and awareness-raising on climate impacts on water resources and Integrated Water Resource Management (IWRM) - Barrier addressed: Lack of water governance frameworks and fragmented water resources management; unsustainable water practices. Alternatives considered:
    - Alternative 1: Provide no support to ministries on IWRM. This would lead to ministries' inability to manage and upscale water investments, resulting in shorter infrastructure lifespans due to climate impacts.
    - Alternative 2: Focus solely on water ministries, neglecting other sectors that are affected by water management. This could result in redundant activities and wasted financial resources, emphasizing the need for cross-sectoral coordination and ownership.
- Output 1.2 Development and endorsement of a national multi-sectoral IWRM strategy linked to the National Water Policy - Barrier addressed: Lack of centralized water governance and

fragmented state-level water policies; unsustainable water management practices. Alternatives considered:

- Alternative 1: Rely on state-level policies. This option would lack a central mechanism for coordination, leading to inefficiencies and poor knowledge sharing between states.
- Alternative 2: No IWRM strategy. Without a national strategy, water overexploitation would worsen, conflicts over water access would persist, and maladaptation, such as over-reliance on harmful practices like charcoal production, would increase.

- Output 1.3 Enhanced curricula and vocational programs on water management and technical delivery - Barrier addressed: Unsustainable water management practices due to the lack of skilled professionals. Alternatives considered:
  - Alternative 1: Rely on existing academic programs. Current programs do not focus on sustainable water management, creating a gap in skilled graduates.
  - Alternative 2: Provide one-time training to save costs. However, water management is increasingly complex and requires ongoing training to adapt to new challenges, integrate best practices, and create a sustainable pool of experts.
- Output 1.4 Establishment of water quality laboratories in multiple states - Barrier addressed: Limited climate monitoring and weak flood/drought warning capacities; unsustainable water practices. Alternatives considered:
  - Alternative 1: Do nothing. Lack of knowledge about groundwater and surface water resources would hamper sustainable development.
  - Alternative 2: Rely on one institute for water quality testing. This would not meet the increasing need for decentralized support in water quality monitoring, making it harder to address contamination issues locally.
- Output 1. 5 Creation of information centers for awareness on DRM, IWRM, and Water Policy enforcement - Barrier addressed: Unsustainable water practices and lack of awareness at the community level. Alternatives considered:
  - Alternative 1: Do nothing. Without community awareness, water points may not be maintained, and households would not understand the costs of water access, reducing their willingness to contribute financially.

B. <u>Outcome 2:</u>

- Output 2.1 Procurement and installation of river gauges, flow meters, and rain gauges to improve water data collection. - Barrier addressed: Limited climate monitoring and weak flood/drought warning capacities. Alternatives considered:
  - Alternative 1: Rely on the existing FAO SWALIM network. This would provide limited understanding of water resources, making it difficult to design optimal water management schemes.
  - Alternative 2: Focus solely on service delivery without investing in hardware. Effective water monitoring requires both capacity building and infrastructure to enable better seasonal forecasts and early warnings.
- Output 2.2 Establishment of a National Hydro-Meteorological Service (NHMS) - Barrier addressed: Limited capacity for climate monitoring and forecasting. Alternatives considered:
  - Alternative 1: Rely on the existing NHMS in the Federal Somalia Water Resources Department, which lacks the capacity to manage hydrological information effectively. This would prevent efficient and cost-effective water resource management.
- Output 2.3 / 2.4 Capacity development for NHMS at national and district levels for drought/flood forecasting and contingency planning - Barrier addressed: Limited climate monitoring and forecasting capacities. Alternatives considered:
  - Alternative 1: Limit NHMS training to the national level. By excluding districts and community organizations, dissemination of alerts and contingency planning would be less effective, reducing local resilience to climate risks.

- Alternative 2: Rely on external forecasts from agencies like NOAA. These forecasts may lack the necessary resolution for specific climate regimes across Somalia and would not foster national ownership or sustainability of NHMS capacities.

- Output 2.5 Link with GCF project to ensure flood and drought warnings are transmitted to agro-pastoralists - Barrier addressed: Limited climate monitoring and unsustainable water practices, along with the limited empowerment of local communities. Alternatives considered:
  - Alternative 1: Act independently without linking with the GCF project. This would lead to duplication of efforts and leave districts poorly informed about drought/flood preparedness, hindering local actions to mitigate risks.

C. Outcome 3:

- Output 3.1 Development of a groundwater development action plan - Barrier addressed: Unsustainable water management practices due to outdated or insufficient hydro-geological data. Alternatives considered:
  - Alternative 1: Rely on old hydrogeological assessments. Most studies are outdated, limiting borehole development and increasing risks of water contamination.
  - Alternative 2: Conduct no technical studies. Without data-driven guidance, poor water source locations could be chosen, worsening water quality and availability.
- Output 3.2 Investment in diversified water infrastructure (e.g., RWH, Hafir dams, solar-powered boreholes) - Barrier addressed: Unsustainable water management and limited empowerment of local populations. Alternatives considered:
  - Alternative 1: Provide only boreholes. Boreholes can cause social and environmental issues like unplanned sedentarization and water quality deterioration due to poor siting.
  - Alternative 2: Provide only berkeds or recharge basins. These low-cost options may be ineffective due to high evaporation rates and ownership issues.
  - Alternative 3: Invest in hydropower dams, which are costly and impractical given the local context.
- Output 3.3 Development of River Basin Management Authorities (RBMAs) for the Juba and Shabelle Rivers - Barrier addressed: Unsustainable water management and limited empowerment of local communities. Alternatives considered:
  - Alternative 1: Continue the current practice. Flooding, levee breaks, and water contamination would persist without effective river management.
  - Alternative 2: Allow communities to manage water independently. Local groups may lack the capacity to manage water resources fairly and sustainably without the integrated approach provided by RBMAs.
- Output 3.4 On-the-farm training for agro-pastoralists to enhance local value chains - Barrier addressed: Unsustainable water practices and limited socio-economic development. Alternatives considered:
  - Alternative 1: Rely solely on pastoralism, which would limit opportunities for livelihood diversification.
  - Alternative 2: Rely on NGOs for training. Without local empowerment and capacity-building, agro-pastoralists would not benefit from sustainable practices in the long term.
- Output 3.5 Afforestation programs and nurseries to combat desertification - Barrier addressed: Unsustainable water practices and limited socio-economic development. Alternatives considered:
  - Alternative 1: Rely on natural re-vegetation processes. This approach would not be sufficient to combat desertification or ensure a sustainable natural resource base for agro-pastoral communities.

Partnerships and linkages with institutions were central to the project's implementation. The collaboration with entities such as FAO-SWALIM, IGAD, and local governmental bodies enhanced the project's ability to access necessary expertise and infrastructure. These partnerships were generally efficient, contributing to capacity building and the long-term sustainability of water resource management practices. However, cooperation with some regional governments faced challenges due to inconsistent participation, affecting

the timely execution of certain activities. Nonetheless, local capacity was effectively utilized through community-level involvement, particularly in establishing water management committees and leveraging local knowledge for implementation.

The project's experience in coordinating diverse partnerships and adapting to changing circumstances offers valuable lessons for future projects in similar contexts. Flexibility in management, the capacity to leverage co-financing, and a robust results-based management framework were critical to maintaining efficiency in the face of adversity. However, the need for more consistent engagement with regional institutions and addressing capacity gaps, particularly in technical areas like solar equipment repair, highlight areas where efficiency could be further improved. In conclusion, while the project's financial resources were utilized efficiently overall, adaptive management and strategic adjustments were vital in ensuring cost-effectiveness and resource optimization.

Financial efficiency

Financial management was a critical aspect of the project's efficiency. The accounting and financial systems in place were adequate, producing accurate and timely financial reports. This transparency facilitated effective decision-making, enabling the project to maintain cost-effective operations even when challenges emerged. The project reports indicated that financial information was reported accurately, with the cumulative disbursement reaching 88% of the GEF Trust Fund/LDCF grant by July 2024. Moreover, co-financing efforts far exceeded initial expectations, with USD 69,744,000 mobilized, reflecting effective leveraging of resources well beyond the original budget.

In the following paragraphs, financial analyses are presented for the dimensions of fund allocation, fund expenditure, and overall fund absorption.

a) Fund allocation analysis

The IWRM project exceeded its initial budget allocation due to a combination of external and internal factors that necessitated additional resource mobilization. Unforeseen challenges included external shocks, including security issues, severe droughts, and the COVID-19 pandemic, which increased costs for logistics, security, and adaptive implementation measures; as well as delays in procurement and delivery of essential equipment led to cost overruns, as price fluctuations impacted planned expenditures.

Furthermore, there was an expansion of the project scope during the Midterm Review (MTR), resulting in a scale-up of certain components based on stakeholder recommendations, such as the inclusion of additional water infrastructure projects and gender-sensitive capacity-building initiatives, requiring increased funding. Finally, exchange rate volatility contributed to higher-than-expected costs for imported goods and services, affecting budgetary estimates. Despite these challenges, the project demonstrated strong resource mobilization efforts, including securing co-financing from partners to cover the additional costs. This reflects the adaptive capacity of the project team in addressing emerging needs without compromising overall project outcomes.

The budget allocation trend analysis shows that while until 2022 available allocations hovered around the three million dollar mark for the two funding sources combined, the budget significantly picked up in 2023, reaching almost USD 6.2m which roughly corresponded to the combined allocations of 2021 and 2022. For the final year of the no cost extension, the left-over funds combined to slightly less than USD 2m, which was the lowest of all yearly allocations. This makes sense since the no cost extension was approved to wrap up some still unfinished activities and tie up loose ends, taking care of any pending business.

Figure 3: Allocation Trend (in USD)

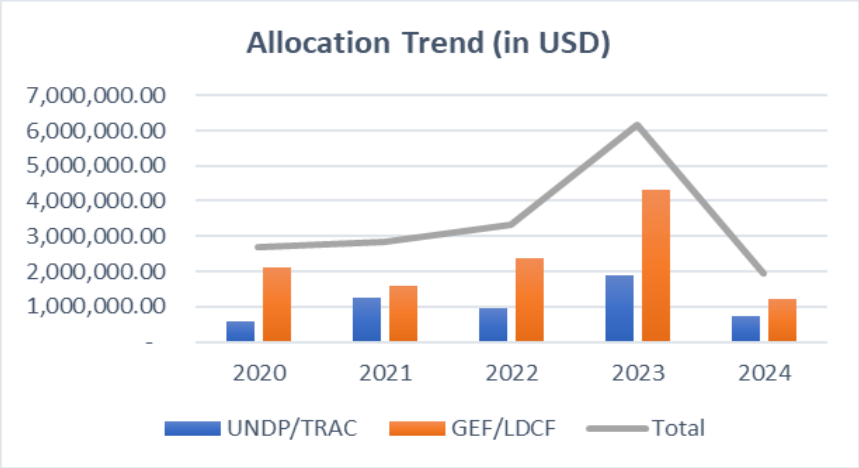


Table 15: Allocation Available for Spending

Allocation available for Spending (in USD)						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	575,629.06	1,270,194.07	952,983.05	1,875,974.81	742,295.80	5,417,076.79
GEF/LDCF	2,124,650.00	1,577,798.01	2,384,521.15	4,305,877.40	1,199,005.07	11,591,851.63
Total	**2,702,299.06**	**2,850,013.08**	**3,339,526.20**	**6,183,875.21**	**1,943,324.87**	**17,008,928.42**

The analysis of allocation ratios for the two funding sources indicates that the discrepancy in the relative shares was most pronounced in 2020. The proportional gap was the smallest in 2021, when UNDP/TRAC funding came within 5 percentage points of claiming half of the allocations. The spread between the sources increased again to 30% UNDP/TRAC vs. 70% GEF/LCF, in 2023, before a distribution of 38% vs. 62%, respectively, for 2024. The total combined weight of GEF/LDCF allocation shares claimed more than two thirds of the total budget (68%), whereas UNDP/TRAC covered slightly less than a third (32%).

Figure 4: Allocation Ration by Funding Source (in %)

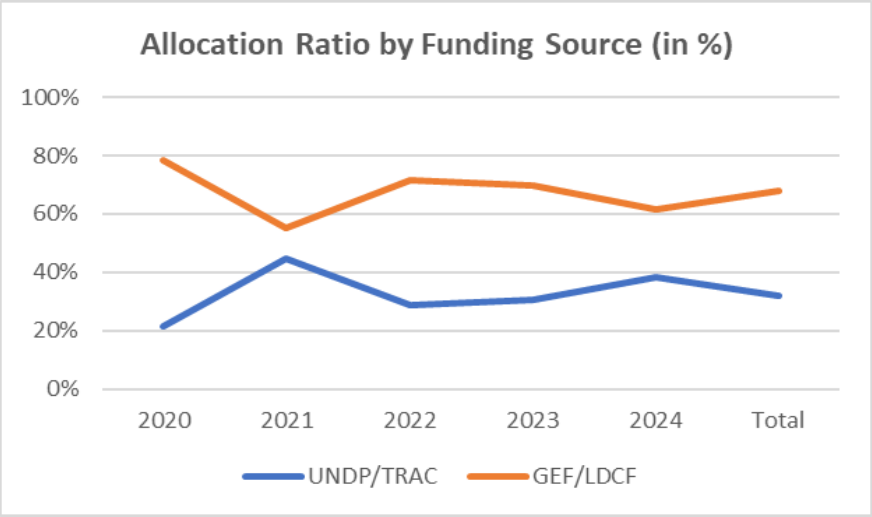


Table 16: Annual Share (in %) of Total Allocation

Annual Share (in %) of Total Allocation						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	10.6%	23.4%	17.6%	34.6%	13.7%	100%
GEF/LDCF	18.3%	13.6%	20.6%	37.1%	10.3%	100%

As already alluded to further above, with regards to the annual proportional shares of allocation funds per source, the year 2023 was the most important for both UNDF/TRAC and GEF/LDCF funds.

Figure 5: Annual Share (in %) of Total Allocation

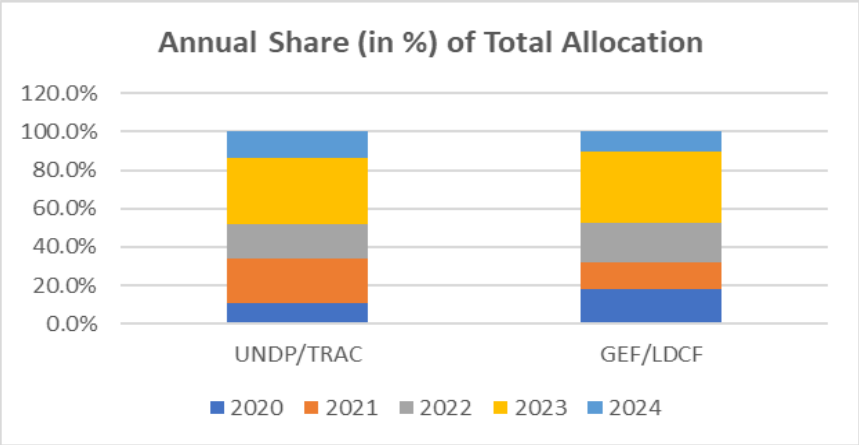


Table 17: Annual Share (in %) of Total Allocation

Annual Share (in %) of Total Allocation						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	10.6%	23.4%	17.6%	34.6%	13.7%	100%
GEF/LDCF	18.3%	13.6%	20.6%	37.1%	10.3%	100%

b) Fund expenditure analysis

The following table and trend graph provide an overview of absolute amounts (in USD) spent by year, per funding source. The year 2023 saw the highest spending, following the same pattern as seen in the allocation graph, since the majority of funds made available on a yearly basis ended up being spent within the respective calendar year. The analysis shows a preponderance of GEF/LDCF2 funding over UNDP/TRAC budget contributions for every single year.

Figure 6: Expenditure Trend (in USD)

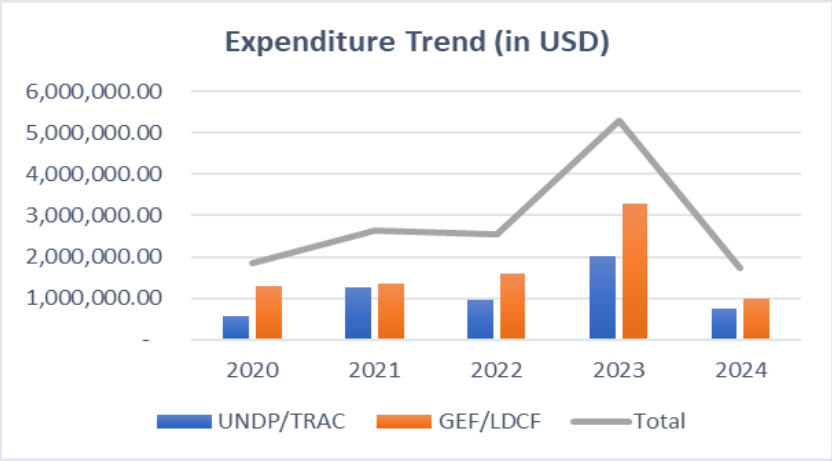


Table 18: Expenditure (in USD)

Expenditure (in USD)						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	575,629.06	1,270,194.07	952,983.05	2,021,051.30	733,800.22	5,553,657.70
GEF/LDCF	1,280,415.33	1,349,877.25	1,586,618.07	3,273,286.53	1,001,190.45	8,491,387.63
Total	**1,858,064.39**	**2,622,092.32**	**2,541,623.12**	**5,296,360.83**	**1,737,014.67**	**14,045,045.33**

Again, as could be seen in the allocation analysis, the discrepancy between these two funding categories' overall financial volumes per year and respective proportional shares, the difference was the largest at the beginning of the project, during its first year (2020), before the gap was almost canceled out, in 2021. The same trend that could be seen among allocation data can also be seen in the data for the final three years of project implementation, in that the discrepancy of relative annual shares increased again quite harshly in 2022 before evolving towards a more equal share over the final two years. Overall, expenditure shares were 4/6 for the entire project cycle including the no cost extension's final year, between UNDP/TRAC and GEF/LDCF funds.

Figure 7: Expenditure Share by Funding Source (in %)

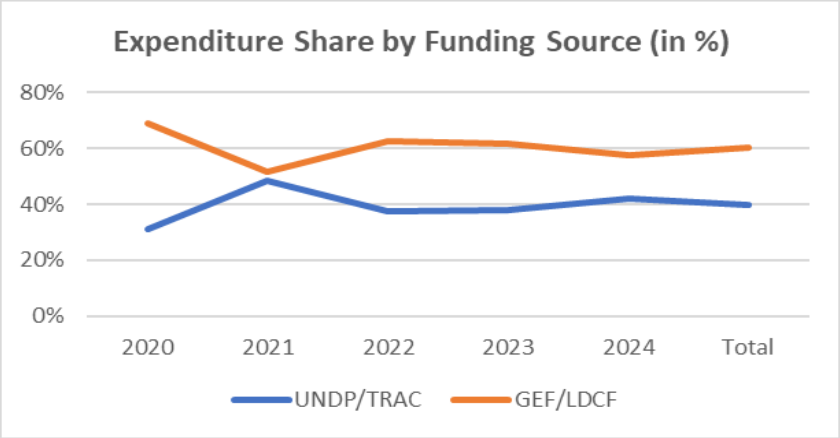


Table 19: Expenditure Shares by Funding Source (in %)

Expenditure Shares by Funding source (in %)						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	31%	48%	37%	38%	42%	40%
GEF/LDCF	69%	51%	62%	62%	58%	60%

The analysis of proportional shares of each year per funding category shows that 2023 claimed the lion's share in both cases, whereas the first and last years were the least important years for expenditures. This pattern is typical for any kind of more complex programme, in that the first year is often consumed with preparing actual spending, by setting up mechanisms and systems and initiating procurement processes. Project maturity is normally reached by the second and third years of operations which is reflected in higher spending ability due to attaining higher payment levels for bulk procurement of hard and soft inputs (including equipment, materials, tools, as well as reaching full capacity of staff hiring and contracted services) received, including spending on infrastructure works and capacity building trainings etc.

Figure 8: Annual Shre (in %) of Total Expenditures

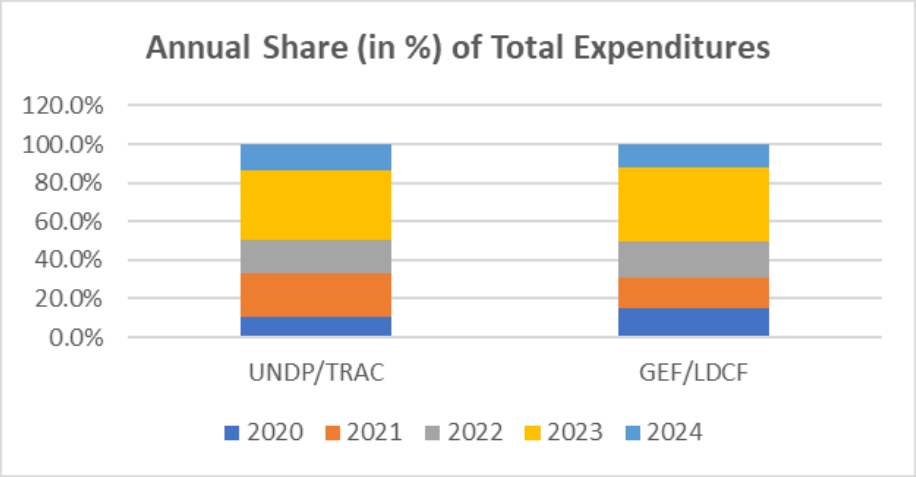


Table 20: Annual Share (in %) of Total Expenditures

Annual Share (in %) of Total Expenditures						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	10.4%	22.9%	17.2%	36.4%	13.2%	100%
GEF/LDCF	15.1%	15.9%	18.7%	38.5%	11.8%	100%

c) Fund Absorption Analysis

Fund absorption denotes the proportional share of spendings over budget allocations. All UNDP/TRAC funds made available got absorbed. Total absorption across the years even exceeded 100% since in 2023, additional funding beyond the original allocation was provided and absorbed over this particular year. In notable contrast, the absorption rate of GEF/LDCF funds was far from optimal, dipping to as low as only 60%, in 2020. The by far highest absorption rates of GEF/LDCF funds were 86% and 84%, in 2021 and 2024, respectively.

Absorption rates for 2022 and 2023 were inbetween the low and high ends, at 67% (year 2022) and 76% (2023). The combined total absorption rates per year showed a similar pattern, only at a higher level than the values for the GEF/LDCF category, on its own: While total absorption for the project cycle was 83%, annual rates for 2021 (92%), 2023 (86%), and 2024 (89%) were higher, whereas 2020 and 2022 values were lower than the total average.

Figure 9: Absorption Rate by Funding Source

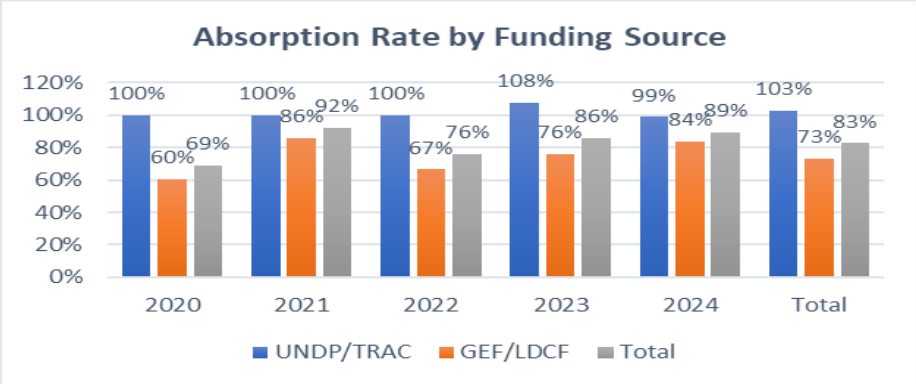


Table 21: Absorption Rate (Expenditure/Available Allocation); in %

Absorption Rate (Expenditure/Available Allocation); in %						
Donor	**2020**	**2021**	**2022**	**2023**	**2024**	**Total**
UNDP/TRAC	100%	100%	100%	108%	99%	103%
GEF/LDCF	60%	86%	67%	76%	84%	73%
Total	**69%**	**92%**	**76%**	**86%**	**89%**	**83%**

Cost-effectiveness of implementation was generally achieved, although some inefficiencies arose due to external factors such as political delays and drought cycles. These challenges affected the pace of civil works and infrastructure development in certain regions. Despite these setbacks, the project was able to maintain an efficient use of resources by adapting its timelines and strategies. The delay in reaching some milestones highlighted the critical importance of adaptive management in maintaining efficiency across different phases of the project. In view of overall efficiency of the project planning and implementation-related processes, the high amounts of co-financing and the more than decent catalytic effects and evidence of early impact across several domains or sectors, the project deserves a rating of at least satisfactory (5-6), if not highly satisfactory for its overall efficiency.

3.3.4 Sustainability: financial, socio-economic, institutional framework and governance, environmental, and overall likelihood

Financial Sustainability

While the IWRM project demonstrated a promising start in institutionalizing water resource management, maintaining institutional ownership requires targeted actions in the area of fiduciary arrangements. Setting up a sustainable financing mechanism including dedicated budget allocations within federal and state governments for water governance would be ideal. The project highlighted the need for recurring financial resources to maintain infrastructure, operate hydro-meteorological systems, and support community-driven initiatives. Exploring public-private partnerships (PPPs) and donor-funded mechanisms could ensure a diversified and resilient funding base for future water management efforts.

For the time being, the overall impact and, by extension, also the financial sustainability of the LCDF II project's legacy is rooted in its successful leveraging of co-financing, mobilizing funds nearly seven times the original budgeted amount. This strong financial foundation is further supported by cost-sharing schemes introduced at the community level, which ensure the maintenance of water systems. Communities have demonstrated willingness to contribute financially for the upkeep of solar-powered water systems, hiring watchmen, and maintaining water retention structures. Depending on the scope and quality of water services that can be provided, water committees might further evolve into parts of the local public service landscape and thus government, or evolve into for regular profit entities. If the case, then either taxation or regular subscription fees would help sustain to support general maintenance activities and finance business costs; for if the committees were to morph into at least semi-professional outfits, in the mid- to long-term there would arise a need to remunerate technicians and administrators through regular wages or salaries, rather than irregular cash incentives as currently the case with perimeter guards, for example.

However, there are risks related to technical expertise, particularly regarding the maintenance of solar infrastructure. Should any major repairs be needed to the infrastructure, communities or regional State-level institutions may struggle to maintain these systems long-term, should important financial measures are required. Additionally, while financial contributions from communities are currently effective, the long-term success of these schemes will depend on their economic stability and the continued availability of funds. The same applies to the maintenance of the hydro-meteorological gear (radar tools, river gauges etc.) supplied under Outcome 2.

Finally, the issue of financing the maintenance and expansion of the value chains (dairy, hides etc.) will require financing for long-term maintenance and repairs and investments for expansion. Field level data showed first major concerns surrounding the baling devices which cannot be used without tractors, with fodder producers not being able to pay for renting the required tractors. State level and/or donor support will likely be needed unless the private sector and/or financial institutions were willing to run the risk of providing required credits.

These funding concerns are separate from the quite impressive co-financing which is mostly for setting up additional infrastructure and related capacity development. Regardless, the issue of maintenance and further investments into the socio-economic value chains will be required. In that respect, the overall demand for related funding and related competition will actually further increase along with further investments building on the achievements of the IWRM project. While this might trigger positive meso and macroeconomic effects growing overall markets and the economy at large, at district and regional level, there are also risks attached to the above.

Therefore, in view of the various risks, the overall rating of financial sustainability is a 3 (Moderately Likely). Nevertheless, as discussed in the following paragraphs, the overall socio-economic sustainability is rated higher given the multiple positive ripple effects of the socio-economic investment.

Socio-Economic Sustainability

The project made substantial contributions to socio-economic sustainability by empowering communities to take ownership of water management and fostering local capacity for maintaining infrastructure. The establishment of local water management committees, with substantial participation from women and individuals with disabilities, strengthens social cohesion and ensures inclusivity. Women's involvement in decision-making, dairy production, and fodder storage has transformed traditional gender roles, increasing household incomes and enhancing community resilience.

Additionally, by addressing water scarcity through sustainable water infrastructure, the project has improved agricultural productivity, contributing to food security and economic resilience for agro-pastoral communities. These socio-economic benefits increase the likelihood that communities will continue to support and maintain project outcomes. However, persistent security concerns in regions like Baidoa, and potential political instability, could affect long-term socio-economic sustainability. In final analysis, the socio-economic is rated as 3-4 (moderately likely to likely).

Institutional Framework and Governance Sustainability

The project's sustainability within the institutional framework and governance context is reinforced by the establishment of the Integrated Water Resource Management (IWRM) Strategy, the strengthening of regional water management and climate change, environmental and DRM-related entities, their overall capacity development, as well as their coordination and collaboration thanks to various managerial fora and platforms, and technical committees. Additionally, capacity-building initiatives for government officials and local authorities have strengthened governance structures, fostering long-term resilience.

Several governance structures established under the IWRM project have shown potential for long-term viability. These include community-based Water Management Committees (CBWMCs), IWRM units within regional ministries, and hydro-meteorological networking.

With regards to the community-based committees, composed of diverse stakeholders including women and marginalized groups, they have demonstrated strong ownership of local water resources. In some regions, CBWMCs have independently mobilized resources for maintenance and repairs, ensuring continued functionality of water points. For example, the committees established in Puntland have integrated training on financial management and conflict resolution, enhancing their operational independence.

IWRM units established within regional ministries, such as in Somaliland and Puntland, have taken responsibility for coordinating water resource planning and infrastructure management. Their integration into broader state-level planning processes positions them as key actors in maintaining water governance systems. Finally, hydro-meteorological networks consisting of technical experts, although still under development, have the potential to become self-sustaining with adequate financing and capacity-building efforts. Regular data collection and analysis by these networks can inform climate resilience strategies.

To ensure political stability and support, institutional ownership requires consistent political buy-in across Somalia's federal and regional states. Strengthening coordination between the Federal Government of Somalia (FGS) and state governments through intergovernmental frameworks will be essential for policy alignment and sustained governance structures. Advocacy efforts to embed IWRM principles into national development strategies and legal frameworks might be an option to further solidify long-term political commitment.

The intended establishment of River Basin Management Authorities (RBMAs), while still pending, is a worthwhile effort that, if it can be realized, would mark major achievements and would likely be game changers in terms of sub-regional integrated water management in the Horn of Africa. However, for the time being and in recent history, political tensions, competition and instability as well as continuous security concerns have marred the prospects for collaborative cross-border approaches. In a number of areas such as the surroundings of Baidoa or Jubbaland, insecurity poses a risk to governance sustainability at the institutional level. While dialogue and engagement with regional authorities helped mitigate some political challenges, ongoing coordination between national and state governments will be crucial to sustaining institutional frameworks in the long run.

By contrast, at the level of microlevel institution building within project communities and related sustainability prospects, the picture is much less bleak given the high levels of ownership and involvement of communities in the village-level water management committees. Therefore, the overall rating of governance sustainability is rated as 4 (likely).

Environmental Sustainability

The project has demonstrated strong environmental sustainability through interventions like rangeland rehabilitation, afforestation, and water retention systems. These efforts have successfully mitigated soil erosion, improved water retention, and enhanced the resilience of agricultural systems to drought. Community members in regions like Puntland and Somaliland reported significant improvements in their environmental conditions, and many have begun replicating water retention techniques such as stone-laying for soil erosion control.

However, ongoing environmental threats, particularly charcoal production and overgrazing, pose risks to the sustainability of land rehabilitation efforts. While the project addressed these issues through community engagement and reforestation, continuous monitoring and stronger environmental governance will be required to maintain these benefits in the long term. Again, the rating is 3-4 (moderately likely to likely).

Analysis of Exit Strategy

The IWRM project's exit strategy demonstrated efforts to promote replication and scalability, ensuring that its outcomes could extend beyond the project's lifecycle. Key elements included:

- Capacity Building and Institutional Strengthening: The project emphasized developing institutional capacity at both federal and state levels, equipping stakeholders with the knowledge and tools necessary to replicate best practices. Training modules on integrated water resource management, gender-sensitive governance, and climate resilience were

made accessible to local governments and community organizations, promoting their long-term use and replication.

- Knowledge Products and Dissemination: The project developed several knowledge products, including guidelines, technical manuals, and case studies documenting successful interventions. These materials were shared with stakeholders and made available for future projects, ensuring that lessons learned could inform similar initiatives.
- Demonstration Sites: Essentially, all project sites served as demonstration or pilot sites for the respective regional environment. The establishment of demonstration sites showcasing climate-resilient water infrastructure served as practical models that other regions could adopt. These sites also included elements of gender integration and sustainability to encourage comprehensive replication.
- Engagement with Partners for Scaling Up: Partnerships with government ministries, donor agencies, and NGOs were leveraged to create buy-in for replication. For example, collaboration with the Ministry of Water Resources ensured that key elements of the project were embedded in national IWRM strategies, enabling their continuation.

Overall Likelihood of Sustainability

In summary, while the project has achieved substantial gains in financial, socio-economic, institutional, and environmental sustainability, addressing technical gaps, political risks, and environmental threats will be critical for ensuring the continued success of these interventions. Taking into account the financial, socio-economic, institutional, and environmental factors, the overall sustainability of the LCDF II project is quite strong. The project successfully embedded local ownership, built capacity at both community and government levels, and contributed to long-term environmental resilience.

Challenges related to political instability, technical expertise for maintaining infrastructure, and ongoing environmental threats will require continued attention to fully realize the project's long-term sustainability potential. However, the overwhelming relevance of the project approach and its design logic and the strong buy-in among beneficiaries, with very strong levels of motivation and ownership at federal level and overall strong levels of buy-in at regional level, act as counterweights tilting the overall verdict towards a final rating of 3. The final rating is a 3-4, therefore (moderately likely to likely).

3.3.5 Country ownership

The IWRM project demonstrated strong country ownership at the federal, regional, and community levels. At the federal level, the project aligned with national priorities, supporting Somalia's National Development Plan (NDP-9) and aiding in the establishment of the Ministry of Environment and Climate Change, which underscored the government's commitment to environmental governance and water resource management.

At the regional level, Federal Member States played an active role in water management and policy coordination, fostering strong local engagement. The project's emphasis on collaboration between federal and regional governments through joint platforms helped ensure that ownership was spread across all levels of governance.

At the community level, the project empowered local populations by forming water management committees composed of pastoralists, women, and marginalized groups. These committees took responsibility for the construction, maintenance, and operation of vital infrastructure such as dams and berkads, implementing cost-sharing mechanisms for long-term sustainability. This active community involvement promoted strong local ownership, ensuring that water resources were managed effectively and sustainably by the people who depend on them most. This triple-layered ownership—from the federal to the community level—ensured the project's long-term impact and success.

3.3.6 Cross-cutting Issues (Gender & Disability Inclusion)

Gender Equality and Women's Empowerment

The GEF IWRM project demonstrated a strong commitment to promoting gender equality and women's empowerment by incorporating these principles into both policy change and economic activities across all regions. Several factors contributed to the project's success in influencing policy and fostering women's economic empowerment:

1. Institutional Support for Gender Mainstreaming: From the project's inception, gender mainstreaming was a core focus. A 30% female representation quota on water management committees was achieved in all areas, ensuring that women had a voice in the governance and decision-making processes related to water resource management. This institutional support for gender inclusivity in policy implementation created a platform for women to influence water management decisions at the local and regional levels.

2. Targeted Capacity-Building Initiatives: The project provided targeted training and capacity-building programs for women, equipping them with skills in water management, dairy production, and fodder storage. These initiatives not only helped women contribute to community-level water management but also allowed them to enter economic activities that were traditionally male-dominated. For instance, in Somaliland, women's groups were established to handle milk production and sales, significantly increasing household incomes and enhancing women's economic resilience.

3. Economic Empowerment through Livelihoods Support: The project actively supported women's involvement in income-generating activities. By enabling women to take part in dairy value chains, fodder production, and other agricultural activities, the project promoted women's financial independence. This economic empowerment was further supported by access to new water infrastructure, such as wells and irrigation systems, which allowed women to diversify their livelihoods beyond traditional roles. This shift in economic roles also contributed to transforming gender norms within communities, with men increasingly recognizing the importance of women's contributions to household and community development.

4. Participatory Governance: Women's participation in decision-making roles extended beyond water committees. The project facilitated the inclusion of women in broader community discussions about land use, water access, and resource distribution. This participatory approach ensured that women's perspectives were integrated into governance structures, resulting in more inclusive and gender-sensitive policies. For example, in Puntland, women played a key role in community consultations about water access, helping to shape the project's interventions in ways that aligned with local needs.

5. Transformational Change in Gender Roles: By providing women with leadership opportunities and economic resources, the project contributed to transformational change in gender roles. The involvement of women in community leadership roles, including water governance and agricultural activities, challenged traditional norms that often restricted women's participation in public life. This shift was particularly evident in regions like Somaliland and Puntland, where the project successfully integrated women into decision-making processes that directly impacted community welfare.

6. Reduction in Gender-Based Violence (GBV) Risks: The project also contributed to reducing SGBV risks by improving access to water resources. By constructing closer and safer water collection points, the project reduced the distances women had to travel to fetch water, minimizing their exposure to risks. This improvement in access to water freed up time for women, enabling them to engage in other productive activities, further enhancing their economic empowerment.

Disability Inclusion

The GEF IWRM project prioritized the inclusion of individuals with disabilities (PwDs) in both its design and implementation phases, ensuring that the project adhered to principles of human rights and social equity. This focus on disability inclusion was evident in the following ways:

1. Inclusive Governance Structures: The project integrated PwDs into local governance structures, including water management committees, where they actively participated in decision-making. For instance, in Somaliland, a PwD chaired one of the water committees, demonstrating the project's commitment to ensuring that the voices of marginalized groups were represented in governance. This inclusion of PwDs in governance roles ensured that the specific needs of disabled individuals were considered in the planning and management of water resource.

2. Accessible Infrastructure Design: The project made concerted efforts to ensure that the water infrastructure developed was barrier free. Water points, wells, and collection systems were designed with accessibility in mind, allowing individuals with disabilities to access clean water without physical barriers. This accessibility was critical to ensuring that PwDs benefitted equally from the project's interventions, thus promoting human rights and equity.

3. Participation in Training and Capacity-Building: PwDs were not only included in governance but also benefitted from the project's capacity-building initiatives. They participated in training programs focused on water management, climate resilience, and agricultural activities. This participation ensured that PwDs were equipped with the technical knowledge to contribute to the long-term sustainability of the project's outcomes. In regions like Baidoa and Somaliland, PwDs were actively involved in both the planning and execution of project activities, fostering a sense of ownership and empowerment.

4. Methodological Integrity and Inclusion: The terminal evaluation report adhered to evaluation standards of integrity, accountability, transparency, and objectivity, incorporating robust methodologies that reflected the project's inclusive approach. Field interviews and focus group discussions (FGDs) were conducted with PwDs and marginalized groups, ensuring that their perspectives were integrated into the evaluation findings. These interviews highlighted the project's success in creating inclusive governance structures and designing accessible water infrastructure.

5. Human Rights-Based Approach: The project's commitment to a human rights-based approach ensured that the interests of PwDs were integrated at every stage of the project. This approach extended to policy discussions, where PwD participation influenced local governance structures and water management policies. By prioritizing inclusion, the project not only addressed immediate water needs but also empowered PwDs to play an active role in their communities.

Overall, the GEF IWRM project succeeded in advancing gender equality and women's empowerment by integrating women into governance structures, promoting their economic empowerment, and shifting traditional gender roles. Simultaneously, the project demonstrated a strong commitment to disability inclusion, ensuring that PwDs were actively involved in decision-making processes, benefitted from accessible infrastructure, and were empowered through training and capacity-building initiatives. These achievements reflect the project's adherence to cross-cutting principles of gender equality, human rights, and inclusivity, and provide valuable lessons for future initiatives aiming to integrate these principles into climate resilience and water management projects.

3.3.7 GEF Additionality

The GEF IWRM project provided critical added value by aligning with global, national, and GEF objectives, driving forward sustainable water management, climate adaptation, and improved livelihoods for Somali communities. Through these integrated efforts, the project enhanced Somalia's adaptive capacity and

contributes to broader climate resilience goals. At the impact level, the GEF IWRM project added significant value by directly contributing to multiple Sustainable Development Goals (SDGs) and aligning with Somalia's UNDAF/Country Programme Document (CPD) outcomes, demonstrating its critical role in advancing both global and national climate action and sustainable development priorities.

- Contribution to Sustainable Development Goals (SDGs): The project's alignment with SDG 13: Climate Action underscores its central focus on building climate resilience. By integrating climate-resilient technologies and practices into water resource management, the project addressed the vulnerabilities of agro-pastoral communities in Somalia to climate change impacts such as droughts and floods.

- Support for National Development Objectives: At the national level, the project contributed to CPD Outcome 3: "Somali women and men benefit from increased sustainable livelihood opportunities and improved natural resource management." By improving access to water and enhancing land management practices, the project fostered sustainable livelihoods for vulnerable populations, aligning with CPD Indicator 3b—"Improved natural resource management". This was achieved through investments in water infrastructure, rangeland rehabilitation, and capacity building for sustainable land use practices.

- Alignment with UNDP Strategic Plan Outputs: The project also supported key outputs from the UNDP Strategic Plan. Specifically:
    - Output 1.3: The project develops solutions at both national and sub-national levels for the sustainable management of natural resources, addressing water scarcity and ecosystem degradation.
    - Output 1.4: It scales up climate change adaptation measures across sectors by implementing climate-resilient technologies, such as solar-powered water systems and reforestation initiatives.
    - Output 2.5: By enabling legal and regulatory frameworks for water governance and resource management, the project ensures the conservation and sustainable use of natural resources in line with international conventions and national policies.

- Alignment with GEF Strategic Objectives: The GEF Climate Change Adaptation Objective 2—to increase adaptive capacity at local, national, and global levels—was directly addressed by the project. Through the adoption and scaling up of climate-resilient practices, it enhanced Somalia's ability to manage climate risks and variability.

- GEF Expected Outcomes and Outcome Indicators: The project delivered on several GEF Expected Outcomes:
    - Outcome 1.3: The project successfully adopts and scales up climate-resilient technologies, such as rainwater harvesting and drought-resistant crop systems.
    - Outcome 2.4: It strengthens institutional capacities by training government officials and local communities in water management and adaptation strategies, ensuring long-term resilience.
    - Outcome 3.2: Policies and plans for climate adaptation are developed and integrated into national strategies, enabling Somalia to prioritize and implement adaptation measures across multiple sectors.

- The GEF Outcome Indicators were also addressed through the project's risk reduction measures, which extend climate change resilience to a significant portion of the population. This project contributes to increasing the percentage of the population covered by climate risk management, further demonstrating its value in mitigating climate vulnerabilities.

Furthermore, the LCDF2 project built on a series of past and current initiatives, providing additionality to

predecessor and partner projects by enhancing, scaling, and aligning their efforts with a more integrated approach to water resource management, disaster risk reduction, and climate resilience. Below follows an overview listing the additionality of the LCDF2 project to each of the key predecessor and partner projects:

a. LDCF 1 (2014–2019, GEF-LDCF/UNDP, USD 8m) – Enhancing Climate Resilience of Vulnerable Communities and Ecosystems in Somalia: The LCDF2 project expands on LDCF1's foundational work, which had established the National Hydro-Meteorological Services (NHMS) and had provided early warnings for disaster risk management (DRM). LCDF2 guided all further disaster risk reduction and water resource management efforts by implementing an Integrated Water Resource Management (IWRM) Strategy. This strategy drove water resource planning across sectors, ensuring that water governance became central to climate adaptation, disaster management, and sustainable water usage.

b. SWALIM (2013-2018, EU, FAO, USD 15m) – Somalia Water and Land Information Management Phase V: LCDF2 built on SWALIM's data collection networks by further expanding the capacity of NHMS to improve flood warning and drought management across Somalia. It extended SWALIM's work by empowering women, youth, and traditional leaders with the technical knowledge required for local water management and monitoring. This community-level engagement ensured that data collection and flood/drought warnings effectively reach vulnerable agro-pastoralist populations.

c. ICPAC (IGAD) – IGAD Climate Prediction and Application Centre: LCDF2 leveraged ICPAC's technical trainings to enhance Somalia's capacity to analyze climate data and produce more accurate forecasts. This improved the level of national and subnational coordination in climate monitoring, which is essential for timely disaster preparedness and resource allocation.

d. RESTORE (2016-2020, EU, EUR 8m) – Strengthening the Resilience of Communities in Puntland and Somaliland Project: The LCDF2 project integrated feedback from RESTORE's work on resilience-building measures, particularly in the water sector, into its IWRM Strategy. This integration ensured that lessons learned from Puntland and Somaliland were applied on a national scale, guiding the development of more effective water governance systems and climate-resilient infrastructure.

e. UN-JPLG III (2008-2017, Sweden, EC, DFID, Norway, Denmark, USD 18.6m) – United Nations Joint Programme on Local Governance: Building on the findings of the JPLG project, particularly its water management study, LCDF2 mobilized water resources for agro-pastoralists in a balanced manner, ensuring roles are clearly defined at both central and subnational levels. LCDF2 updated water governance systems by legitimizing customary laws and traditional leaders in water management. Furthermore, the implementation of Somaliland's Rural Access Water Strategy by LCDF2 supported cost recovery mechanisms and improved decentralized operations and maintenance (O&M) systems for local water services.

f. Water Infrastructure Development for Resilience in Somaliland (2016-2020, AfDB, 6m UA): LCDF2's IWRM framework significantly upgraded the coherence to water infrastructure planning, aligning development efforts across different sectors and stakeholders. This heightened degree of coherence ensured that water investments contribute(d) to broader resilience-building goals by considering future climate risks and sustainable water usage.

g. DRSLP II (Somalia) (2013-2021, AfDB, USD 22.5m) – Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa: LCDF2 complemented DRSLP II by sharing capacity-building materials and training for water resources management. This facilitated the design of water schemes and groundwater development that are aligned with the overarching IWRM policy. Moreover, LCDF2 enhanced the operation and maintenance of water infrastructure in DRSLP-targeted districts by integrating training materials from its own capacity-building efforts.

h. Danish Refugee Council (DRC) (2017-2019, USD 200,000): LCDF2 upscaled successful river embankment stabilization techniques pioneered by the Danish Refugee Council. The project also piloted fodder

production in new locations, ensuring agro-pastoralists have resilient food sources during periods of water scarcity.

i. IDMP HOA (2014-2018, DANIDA, GWP) – Integrated Drought Management Program in the Horn of Africa: LCDF2 incorporated the innovative drought management approaches developed under IDMP into its broader IWRM strategy, ensuring coherence in water resource planning and drought management. Additionally, LCDF2 scaled IDMP's capacity-building efforts by training women and youth to manage and operate water systems, empowering local communities to take charge of drought adaptation strategies.

j. Red Cross/Red Crescent and Hunger Resilience Partnership (2016-2020, Kenya Red Cross, Iranian Red Crescent, USD 1m): LCDF2 supported the Hunger Resilience Partnership by installing essential water infrastructure like sand dams and providing agro-pastoralists with climate forecasts that helped them adapt to extreme weather events such as floods and droughts.

k. AfDB RLACC II (2017-2021, USD 9.985m) – Rural Livelihoods Adaptation to Climate Change in the Horn of Africa II: LCDF2 laid the groundwork for water infrastructure planning within the context of RLACC II. The project also built rural capacity for diversifying agro-pastoral livelihoods by helping farmers exploit value chains for milk and hides, offering them sustainable income sources.

l. PENHA (Pastoral and Environmental Network in the Horn of Africa) – USD 1m funded by DFID: LCDF2 upscaled the innovative Seawater Greenhouse concept developed by PENHA, finding broader applications for the technology in Somalia. Additionally, the project expanded training to other areas, with a particular focus on empowering women to manage new technologies in water management and food production.

In summary, LCDF2 complemented and enhanced these predecessor and partner projects by integrating lessons learned, scaling successful innovations, and aligning them under a coherent IWRM strategy. This approach ensured a more sustainable, community-driven response to the complex challenges of water resource management and climate resilience in Somalia.

3.3.8 Catalytic/Replication Effect

Catalytic effects are a desired effect of project design. If there are signs of project features, elements or approaches being replicated without specific prompts or direct involvement of the project, such effects qualify as welcome synergies. In the case of this GEF project, replication effects appeared in a number of circumstances, which points towards desired early impact and augurs well for the prospects of imminent scaling and sustainability including, potentially, without any explicit follow-up funding and programmatic accompaniment.

In the case of the IWRM project, interview data from field level interviews included narrative evidence that design features of the IWRM project have already been replicated in project communities and nearby sites. This included such infrastructure features as earth dams including the use of PVC tarpaulins to avoid seepage or leakage, stone laying techniques etc. General sensitization efforts prior to and during the ramp-up phase of implementation as well as the day-to-day communication through the local governance mechanism of the water management committee ensured that the basic design logic and purpose of the project became known by most if not all community members.

Once the actual design had been put into place and its utility, effectiveness, value-for-money etc. became clear to locals, this inspired the most resourceful community members to replicate the infrastructure design(s) on their own, for private benefit. This is a direct proof of the project's goal to introduce and disseminate a proof-of-concept for the integrated, holistic management approach. It would be interesting to gather additional in-depth data to better understand the dynamics of the "copy-cat" approach by conducting applied research among those individuals or communities, or even other institutions including

IPs, NGOs or even private sector companies that decided to invest their own means into replicating such structures as earth dams, berkads etc. by using project design features.

This would likely yield important insights into the dynamics of replication, including such important questions as if and to what extent the quality of the designs might be compromised through replication if carried out by local "laymen". Granted, one would assume that local labour or foremen that had been involved in the IWRM infrastructure construction works and thus received related training, worked under expert supervision and garnered valuable practical experience on-the-job in carrying out the original construction work on project sites, would have been hired for such replication efforts.

Still, there is a risk element in that the general engineering skills might be lacking, or that essential upstream planning steps and related design features might not have been understood and/or insufficiently applied. A basic related risk would be that these improvised dams etc. might not be properly coordinated with the general "master plan" and thus might interfere in a negative way with the excess water's direction of flow thus preventing planned water levels of reaching the original project site, and other similar risks. Also, flaws in the non-commissioned replications might include security risks such as the dam structure breaking, inordinate seepage or leakage due to improper workmanship not meeting the official project's design protocols or quality standards etc.

Other than that, the large amounts of co-financing that have been generated must also be counted as catalytic or replication effects. Co-financing is to be understood as parallel funding commitments by donors to implement similar initiatives, in this case mostly in and around the project target areas. The level of co-financing reached by the end of the project (USD 69,744,000) was almost seven times as much as the original budget including TRAC resources, or roughly six times as much as the actual expenditure counting GEF plus TRAC funding. These almost USD 70m in co-financing resources mobilized represent almost thirteen times the original amount of the GEF Trust Fund/LDCF grant amount of USD 8,831,000.

3.3.9 Progress to Impact

The GEF IWRM project made significant strides toward achieving its desired impact on water resource management, climate resilience, and community well-being in Somalia. The project contributed to addressing water scarcity, enhancing agricultural productivity, improving community resilience to climate risks, and empowering marginalized groups.

One of the most visible impacts of the project was its success in improving access to water in agro-pastoralist communities. The construction of water infrastructure, such as earth dams, berkads, and irrigation systems, directly addressed water scarcity, enabling communities to engage in more sustainable agricultural practices. This resulted in increased food security, particularly through the rehabilitation of rangelands and improved access to water for livestock and farming. Moreover, the project's support for the establishment of River Basin Management Authorities (RBMAs) strengthened water governance structures at the national and regional levels. This contributed to long-term water resource management by ensuring equitable access to water for both upstream and downstream users.

The project also made significant contributions toward building community resilience to climate change by integrating climate-resilient technologies and practices. One of the key achievements was the dissemination of early warning systems for floods and droughts, which reached over 525,000 agro-pastoralists (52% women), far exceeding the original target. This has helped communities better prepare for extreme weather events, reducing their vulnerability to climate shocks. Additionally, the National Hydro-Meteorological Service (NHMS) was established and capacitated through the project, enhancing Somalia's ability to forecast and respond to climate risks. This improvement in climate risk monitoring and response has had a profound impact on reducing the adverse effects of droughts and floods.

Moreover, the project successfully mainstreamed gender equality by promoting women's active participation in water management and decision-making processes. Women were included in water management committees and received training in income-generating activities such as fodder production and dairy management. This not only improved women's economic resilience but also contributed to changing traditional gender roles within the communities. The project's emphasis on reducing gender-based violence (SGBV) risks by constructing water points closer to communities also had a significant positive impact. By decreasing the distances women had to travel to fetch water, the project reduced their exposure to risks, freeing up time for other productive activities.

Similarly, the project made concerted efforts to ensure the inclusion of persons with disabilities (PwDs) in all phases of implementation. PwDs were actively involved in water management committees and participated in project-related training, ensuring that their needs were considered in decision-making processes. This inclusion helped foster a more equitable and inclusive approach to water management.

Furthermore, the project also contributed to environmental sustainability by promoting practices that mitigated environmental degradation. The afforestation and rangeland rehabilitation efforts reduced soil erosion and improved land productivity, while water retention systems helped control runoff and improve water availability during dry periods. However, ongoing challenges, such as charcoal production and overgrazing, remain threats to long-term sustainability. Addressing these environmental risks is critical to ensuring that the project's positive impacts on the environment and livelihoods endure.

In terms of institutional strengthening and sustainability at institutional level, the project laid a solid foundation for sustainable water governance through the development of the IWRM strategy and the establishment of RBMAs. These institutions are crucial for long-term water resource planning, and their continued development will ensure that the project's gains are sustained beyond its completion. Additionally, capacity-building initiatives for local and national stakeholders, including government officials and community members, ensured that skills and knowledge related to water management and climate resilience were transferred to the relevant institutions and individuals. This capacity development enhanced the likelihood of long-term sustainability of the project's interventions.

Overall, the GEF IWRM project made substantial contributions to achieving its desired impact by improving access to water, building community resilience to climate risks, empowering women and marginalized groups, and strengthening water governance. The project's interventions laid the groundwork for lasting positive changes in water resource management and climate adaptation in Somalia, though ongoing efforts are required to address environmental and technical challenges for long-term sustainability.

3.2 Overall Design Quality & Performance Outcome

The design of the GEF IWRM project was well-aligned with Somalia's environmental, social, and economic priorities, addressing critical issues such as water scarcity, climate resilience, and community development. The project demonstrated strong internal coherence, strategic adaptability, and responsiveness to external challenges, making its overall design quality highly relevant and effective. The project's alignment with both global environmental priorities and Somalia's national development objectives contributed significantly to its relevance. By focusing on Integrated Water Resources Management (IWRM) and climate adaptation, the project directly addressed critical water governance and environmental sustainability needs.

This relevance was underscored by the project's contributions to GEF focal areas, particularly in climate adaptation, biodiversity conservation, and sustainable water management, as well as Somalia's National Water Resources Strategy (NWRS) and National Adaptation Programme of Action (NAPA). The project's interventions provided a proof-of-concept for water resource management and helped Somalia address the vulnerabilities of agro-pastoral communities. The project also targeted vulnerable agro-pastoralist

communities who are most affected by climate variability, focusing on building resilience through water infrastructure, early warning systems, and livelihood diversification. These efforts were highly relevant to the local context, ensuring the project directly benefited the communities in need.

The project's effectiveness is evident in its ability to achieve, and in many cases, surpass its expected outcomes. Key success metrics included:

1. Water Infrastructure Development: The project significantly exceeded its targets by constructing and rehabilitating 40 water infrastructures, such as boreholes, dams, and water catchments, benefiting over 111,200 households, of which 52% were women-headed. This infrastructure development was critical in addressing water scarcity and improving resilience to floods and droughts.
2. Climate Risk Management: The establishment and capacity-building of the National Hydro-Meteorological Service (NHMS) greatly enhanced Somalia's ability to monitor and manage climate-induced risks. The project also exceeded its targets in early warning systems, reaching over 525,000 agro-pastoralists with climate risk information, far surpassing initial expectations.
3. Livelihood Diversification: The project effectively supported agro-pastoralists in diversifying their livelihoods through training programs focused on value chains such as milk and hide production. The project trained 1,260 community members, 40% of whom were women, significantly improving their economic resilience.

Furthermore, the project demonstrated coherence in design, integrating multiple components such as policy development, capacity building, infrastructure improvement, and climate risk monitoring. This holistic approach ensured that water resource management was addressed comprehensively, from policy frameworks to on-the-ground infrastructure improvements. Adaptive management was a key feature of the project, particularly in responding to external challenges such as political instability and climate variability. For instance, the project adapted its work plans in response to security risks, logistical challenges, and environmental shocks like droughts. These adjustments allowed the project to stay on track despite delays, ensuring that its objectives were met efficiently.

As analyzed in detail further above, the project successfully facilitated partnerships with organizations such as FAO-SWALIM, IGAD, and local governments, leveraging their expertise and resources to enhance project outcomes. These partnerships were critical in building institutional capacity for water governance and climate resilience. However, some challenges were noted, particularly with the inconsistent participation of regional governments, which affected the timely execution of activities in certain areas.

Financial management was another strength of the project. The project's accounting systems were robust, producing accurate and timely financial reports. Co-financing efforts were highly successful, mobilizing nearly USD 70 million, far exceeding the original budget. This financial leverage amplified the project's impact, enabling it to achieve more than initially planned. The project was cost-effective in its use of resources, although some inefficiencies were noted due to political and environmental challenges. However, adaptive management strategies ensured that resources were reallocated efficiently to maintain progress towards objectives.

Overall, the GEF IWRM project demonstrated a high-quality design and effective performance. Its relevance to both global and local priorities, coupled with its ability to adapt to challenges, contributed to its success in improving water governance, climate resilience, and community livelihoods. The project exceeded many of its targets, especially in the areas of infrastructure development, climate risk management, and livelihood diversification, highlighting its overall effectiveness and positive impact on Somalia's agro-pastoral communities. This successful implementation, coupled with strong partnerships, financial efficiency, and adaptive management practices, underscores the project's high design quality and strong performance outcome. The overall rating for project results and impact is assessed as satisfactory (5).

4. Main Findings, Conclusions, Recommendations & Lessons

4.1 Main Findings

Relevance

The IWRM project was highly relevant to both community-level needs and broader national objectives, as reflected in Somalia's National Development Plan (NDP-9) and its alignment with the Sustainable Development Goals (SDGs), particularly Goal 6 on clean water and sanitation. The development of the National Water Resource Strategy (NWRS) integrated modern governance frameworks with traditional water management practices while accounting for marginalized communities such as nomadic pastoralists.

At the institutional level, the project aligned with Somalia's institutional frameworks for water resource governance. By leveraging existing capacities within the Ministry of Energy and Water Resources (MoEWR). and other federal entities, it ensured that the National IWRM Strategy reflected both national policy priorities and community needs. This alignment was critical for ensuring that water management strategies were not only technically sound but also politically supported and sustainable over time.

In terms of technical relevance, the project's integration of advanced climate monitoring technologies, such as 13 Automatic Weather Stations (AWS) and groundwater monitoring sensors, reflects a strategic alignment with both local needs and international best practices in water resource management. These systems significantly enhance Somalia's capacity for climate risk monitoring in flood- and drought-prone regions, ensuring that early warnings can be provided to vulnerable populations, such as agro-pastoralists and indirect beneficiaries such as those parts of the population living in areas prone to inundations and thus in need of functioning early warning systems to alert them about incoming floods etc. Thanks to the successful operationalization of the systems a live data portal is accessible on-line.

The hardware also serves as a foundation for other forecast and early warning projects to build their data infrastructure upon. The system allows forecasting of precipitation and river levels for up to two weeks ahead, for announcing flash floods further investments are needed. Flood Early Warning broadcasts are broadcast in Somaali language in the form of regularly scheduled bulletins covering flood risks for the upcoming 7 to 15 day periods, respectively. These warnings have already very concretely served their purpose allowing for countless people to take preventative measures (moving away their cattle, assets, and themselves with their families) and thus allowing them not to become a victim or casualty of recent floods that occurred in Somalia.

First and foremost, however, the project's specific aim was to support agro-pastoralist communities. In this regard, important strides were made through rangeland rehabilitation, the construction of water infrastructure to harness previously destructive excess water and put it to productive use by storing and using it for watering herds of animals, horticultural purposes etc. In addition, the project invested into corollary activities such as dairy production, fodder production etc. There were also spin-off effects for the beneficiary communities, such as reducing or mitigating, or even eliminating violent clashes over grazing rights and access to watering holes between clans, the promotion of overall peace and social cohesion at community level, access to a constant supply of water at household level for cooking etc.

Also, the project's water infrastructure reduced SGBV risks and freed up time that can be used for alternative productive activities, studying and possibly even allowing some free time for leisure by cutting out the need to cover long distances several times per day, typically by girls and women, to fetch water from distant water sources. Finally, the promotion of women, PdW and social minorities through allotting them a set quote on water governance committees also had positive effects on social cohesion and the promotion of minority right and GEWE.

Coherence

The project demonstrated strong policy coherence across multiple levels, from community action to national and international frameworks. The alignment with the National Development Plan (NDP-9), Sustainable Development Goals (SDGs), and Somalia's UN Sustainable Development Cooperation Framework (UNSDCF) ensured that water management strategies were consistent with national priorities for sustainable development and international commitments on climate action.

Beyond policy coherence, the project was a model of multi-sectoral collaboration. The Ministry of Agriculture, Ministry of Livestock, and the Disaster Risk Management Agency played key roles in ensuring that water management was integrated with broader food security and disaster risk reduction efforts. For instance, the collaboration between the MoEWR and the federal member states in developing Water Quality (WQ) labs ensured that technical standards and guidelines were harmonized across regions, enabling coherent water quality monitoring across the country.

The project also showed coherence in its approach to adaptive management. During COVID-19., for instance, when in-person consultations were limited, the project used virtual platforms to ensure that the National Water Resource Strategy and Road Map continued to advance. This adaptability allowed the project to stay on course, despite significant disruptions caused by the pandemic. Similarly, with regards to the project's response to severe drought cycles, the prioritizing of water infrastructure rehabilitation illustrates how adaptive strategies ensured that activities remained relevant and effective under changing circumstances.

The IWRM project also demonstrated strong internal coherence with other UNDP projects and initiatives in Somalia. Specifically, it complemented ongoing efforts in climate resilience, governance, and sustainable development. The IWRM project had an interface and alignment with the all other UNDP-supported resilience programmes in Somalia since having as common denominator and shared goal the improvement of nature's and society's resilience to climate shocks through water infrastructure development and sustainable resource management. Joint training sessions and community mobilization efforts ensured synergies between the initiatives.

Further, it had linkages with UNDP's Governance Programs since the IWRM project reinforced governance systems by establishing water management committees and involving local authorities, which aligns with UNDP's broader focus on institutional strengthening and decentralized governance in Somalia. Finally, there was the element of integration with UNDP's Gender Equality Framework since gender-specific components of the project, including women's capacity building and inclusion in decision-making, directly supported UNDP's commitment to Sustainable Development Goal 5 (Gender Equality). While internal coherence was robust, there were occasional overlaps in resource allocation and outreach strategies, highlighting the need for more streamlined coordination mechanisms across UNDP initiatives.

Effectiveness

The IWRM project's effectiveness is demonstrated not only by its achievements at the community level but also through its institutional impacts and long-term capacity-building efforts. At the community level, the project significantly exceeded its training targets. Initially aiming to train 150 policy makers and planners at the national and district levels on Integrated Water Resource Management (IWRM) principles, the project eventually trained over 1,310 people (30% women). This was a critical achievement for enhancing local knowledge on water management in the context of climate change, thereby improving resilience and ensuring the inclusion of women in natural resource management decisions.

In terms of technical capacity building, the project established fully equipped Water Quality (WQ) labs. in five states—Puntland, Galmudug, Southwest, Hirshabelle, and Jubbaland—and trained 25 water

technicians (30% women). These labs are now operational and play a key role in monitoring water quality, which is essential for ensuring access to safe water in these regions. Additionally, the installation of 13 Automatic Weather Stations (AWS), rain gauges, and groundwater sensors. significantly improved data collection on groundwater and surface water in arid and semi-arid lands (ASALs), such as the Juba and Shabelle river basins. These technological advancements allowed for better climate risk monitoring, enhancing Somalia's ability to anticipate and respond to droughts and floods. For instance, the project's early warning systems now serve over 525,000 individuals (52% women), far exceeding the initial target of 50,000 agro-pastoralists.

The adaptive management approach further enhanced effectiveness. During periods of drought, the project rapidly shifted its focus towards water catchment rehabilitation, borehole construction, and ensuring immediate access to water for affected communities. This ability to pivot according to emerging needs ensured that the project maintained its relevance and effectiveness, even under challenging environmental conditions.

Efficiency

Efficiency was demonstrated in the project's ability to deliver more results than originally planned within the allocated resources. Several factors contributed to this efficiency, including the leveraging of existing infrastructure and close collaboration with national and regional authorities. For example, the use of government networks for early warning dissemination reduced outreach costs while expanding the project's reach to more vulnerable populations.

One of the clearest examples of efficiency was the construction of 40 climate-proof water harvesting infrastructures, exceeding the original target of 24. These infrastructures, including boreholes, earth dams, shallow wells, and irrigation schemes, now serve over 111,200 households, ensuring reliable access to water for both domestic use and livelihood activities such as agriculture and livestock rearing. This outcome was achieved through efficient resource allocation, strategic partnerships, and the optimization of local labor.

Efficiency gains were also made through the establishment of Standard Operating Procedures (SOPs) for water and climate monitoring equipment, which reduced future maintenance costs and ensured operational sustainability. The inclusion of 4 years of operation and maintenance support for the newly installed AWS and river monitoring systems illustrates the project's foresight in maintaining operational efficiency long after the project's conclusion.

Finally, human resources were a critical component of the IWRM project's efficiency, with both strengths and challenges observed. Strengths notably comprised the existence of multidisciplinary expertise. The project team included specialists in engineering, environmental science, and gender, ensuring a comprehensive approach to implementation. Also, continuous capacity building training for project staff enhanced their technical and administrative capabilities, enabling effective delivery of outputs. Related challenges, on the other hand, included high levels of staff turnover. Frequent changes in personnel disrupted implementation timelines and institutional memory, particularly in field locations. There was also an uneven distribution of resources since staffing levels could sometimes be insufficient in remote and high-need areas, impacting the pace of project activities. In terms of administrative workload, key staff faced heavy administrative burdens alongside their technical roles, reducing their efficiency. These human resource challenges, combined with limited logistical support in certain regions, affected the project's ability to maintain consistency in implementation across all target areas.

Sustainability

Sustainability was a central focus of the IWRM project, particularly in its efforts to build local capacity and institutionalize water governance systems. The establishment of fully operational Water Quality (WQ) labs. across five states, with trained technicians and SOPs, ensures that Somalia can monitor and manage its

water resources independently in the long term. These labs are now an integral part of Somalia's national water governance infrastructure, and their ongoing operations will be supported by .local technical expertise built through the project.

The operationalization of the National Hydro-Meteorological Service (NHMS) represents another critical pillar of sustainability. The NHMS is responsible for real-time weather and climate forecasting, enabling Somalia to better predict and respond to extreme weather events. By training local personnel, with 30% women participation, the project ensured that the NHMS will continue to provide vital climate services to the country, even after the project's official end.

At the community level, sustainability was promoted through the project's focus on livelihood diversification. For example, agro-pastoralist communities were trained in the exploitation of livestock value chains (milk and hide production) and climate-resilient farming practices, reducing their reliance on water-dependent activities and improving their resilience to future climate shocks.

Impact

The IWRM project had a profound impact on both community resilience and institutional capacity-building. At the community level, the project's infrastructure improvements, including 40 climate-proof water harvesting structures., directly benefited over 111,200 households., of which 52% were women-headed. This significantly improved access to clean water in drought-prone areas, reducing the need for long and dangerous migrations in search of water and improving overall health and sanitation outcomes.

The project also had a significant impact on rangeland rehabilitation. In Puntland and Somaliland, over 6,285 hectares of rangelands were rehabilitated, far exceeding the original target of 200 hectares per state. This restoration of grazing lands has enhanced the livelihoods of more than 50,000 households., many of which are pastoralist families who depend on healthy rangelands for their livestock.

A critical aspect of the IWRM project's broader impact was its role in state-building and peacebuilding efforts, aligning with SDG 16 (Peace, Justice, and Strong Institutions). By establishing coordination platforms that brought together central and federal member states, the project helped strengthen governance mechanisms for water resource management. These platforms allowed the Federal Government of Somalia (FGS) and its Federal Member States (FMS) to collaborate on the development of integrated water policies and strategic action plans at regional level and foster shared ownership of natural resources, which had previously been a source of conflict between regions.

Furthermore, the project played a key role in supporting the establishment of the Ministry of Environment and Climate Change at the federal level. The IWRM project provided technical support for the design of the ministry's policy, strategic, and operational frameworks, ensuring that the newly formed ministry could effectively govern climate and water-related issues across Somalia. This institutional development was crucial for building long-term resilience to climate change and enhancing Somalia's capacity to meet its international commitments on environmental governance.

The project's work in establishing coordination platforms also had a significant peacebuilding component. By facilitating dialogue between central and regional governments, the project helped reduce tensions over resource management, which had previously exacerbated inter-regional conflicts. The shared management of water resources, combined with equitable policies for water access, contributed to improved relations between federal and state authorities. This cooperation laid the foundation for future collaborations, not only in water management but also in other areas of governance, supporting the broader goals of state-building and conflict resolution in Somalia.

Peacebuilding Success Story: Water as a Catalyst for Peace

A standout example of the project's broader impact is its contribution to peacebuilding through water management. In Somaliland, the construction of a shared sand dam became a key intervention in resolving conflicts between pastoralist communities competing over water resources. Before the intervention, tensions over access to scarce water resources had often resulted in violent conflict between different groups of agro-pastoralists. Through the project, the clans were brought together to jointly design and manage the sand dam, and agree on equitable water-sharing mechanisms. This collaboration reduced tensions and established a framework for ongoing inter-community dialogue, proving that shared water resources can serve as a platform for peacebuilding in fragile contexts.

Gender Equality and Women's Empowerment

The IWRM project was exceptional in its focus on gender equality and women's empowerment. Across various components, 30-52% of participants were women, particularly in training programs on water governance, climate monitoring, and livelihood diversification. Women's participation in the project was not merely symbolic but transformative, ensuring that they had a voice in decision-making processes related to water resource management. For example, women were actively involved in the National Hydro-Meteorological Service (NHMS), with 30% of the service's staff being female, ensuring that gender perspectives were integrated into Somalia's national climate monitoring system.

The project also implemented women-centered livelihood programs, such as training on the milk and hide value chains and climate-resilient agricultural practices, directly contributing to the economic empowerment of women in agro-pastoralist communities. This not only improved their economic standing but also strengthened their role as leaders in building community resilience to climate shocks.

LNOB/PwD Inclusion

The IWRM project adhered to Leave No One Behind (LNOB) principles by ensuring that the needs of marginalized communities, including nomadic pastoralists and displaced populations, were addressed throughout the project. However, while the project included marginalized groups, Persons with Disabilities (PwD) were not explicitly targeted in most components. Future iterations of the project could benefit from a more deliberate focus on PwD inclusion, ensuring that water infrastructure and community programs are designed with accessibility in mind.

Challenges

The project faced several challenges that impacted its coherence, efficiency, and overall implementation. Key aspects to be mentioned in conclusion are:

1. Security concerns and political instability:
   Ongoing conflicts and political fragmentation across Somalia disrupted fieldwork, delayed infrastructure development, and limited stakeholder engagement in some regions.
2. Climate and environmental constraints:
   Prolonged droughts and flash floods increased project costs and stretched available resources, particularly in areas reliant on agro-pastoral livelihoods.
3. Limited data availability:
   Baseline data gaps and challenges in collecting real-time information on water resources hampered evidence-based decision-making and monitoring of outcomes.
4. Coordination with stakeholders:
   While partnerships were a project strength, differences in priorities among stakeholders occasionally led to delays and misaligned expectations.
5. Cultural and gender barriers:
   Socio-cultural norms in certain regions limited the outright participation of women and marginalized groups in project activities, requiring additional advocacy and sensitization efforts.

4.2 Conclusions

The IWRM project in Somalia was a comprehensive and effective initiative that addressed critical challenges related to water access, climate resilience, and community empowerment. By integrating adaptive management, technical innovation, and multi-level coordination, the project laid the foundation for sustainable water governance, state-building, and peacebuilding in Somalia. The project's focus on gender equality, inclusivity, and local ownership ensures that its impacts will be felt for years to come, making it a valuable model for future interventions in fragile environments.

Key lessons from the IWRM project emphasize the importance of community involvement in the design and implementation stages, which led to greater local ownership and sustainability. Flexibility in responding to external challenges, such as pandemics and security risks, was also critical to the project's success. For example, the project demonstrated flexibility in terms of handling its management arrangements by switching from face-to-face interactions with stakeholders to the new default modality of virtual engagement. The project demonstrated that inclusive, community-driven approaches can foster sustainable outcomes and improve the resilience of vulnerable populations. Going forward, ensuring continuous technical training and addressing environmental threats such as deforestation will be critical to scaling and sustaining the project's impacts.

Below follow succinct conclusive evaluative assessments by evaluation criterion.

Relevance: The IWRM project demonstrated strong relevance in addressing Somalia's pressing challenges related to water scarcity, climate resilience, and sustainable development. By integrating modern water management technologies, such as solar-powered water systems, with traditional practices like rangeland rehabilitation, the project addressed both immediate needs and long-term sustainability. The alignment with Somalia's National Development Plan (NDP-9) and its contribution to achieving the Sustainable Development Goals (SDGs), particularly SDG 6 (clean water and sanitation), reinforced the project's relevance to both local and national priorities. Importantly, the project also recognized and incorporated gender and marginalized community considerations, addressing their unique vulnerabilities and ensuring inclusive water governance.

Coherence: The IWRM project was coherent and well-integrated across multiple dimensions. It successfully coordinated with other donor-supported initiatives, such as those led by the World Bank, FAO, and UNICEF, which also focused on water management and rangeland rehabilitation. This alignment minimized duplication of efforts and maximized resource utilization, creating synergies between different programs. At the policy level, the project supported the establishment of coordination mechanisms that convened federal and member state governments, facilitating the integration of water governance across administrative levels. This coherence was vital in bringing together various stakeholders for comprehensive water resource management and sustainable environmental practices.

Effectiveness: The project was highly effective in achieving its goals, particularly in improving water access, rehabilitating rangelands, and strengthening local capacity for water management. Through the construction of climate-proof infrastructure, including dams and berkads, and the introduction of sustainable practices, such as stone-laying for soil erosion control, the project contributed to improved agricultural productivity and community resilience to climate risks. Training programs on water management, dairy production, and fodder cultivation empowered local communities, particularly women, to take on leadership roles in resource governance. The formation of water management committees and the inclusion of women and people with disabilities (PwDs) in decision-making forums further enhanced the project's effectiveness by promoting inclusivity and ownership. A total of 299,500 individuals (52% women) had directly benefitted from the project in terms of livelihoods support.

Impact: The project had a considerable impact on improving water access and climate resilience. In Somaliland and Puntland, optimized water harvesting infrastructures benefited 111,200 households and contributed to the rehabilitation of 6,285 hectares of rangelands, thereby enhancing the resilience of over 50,000 households. This impact was particularly significant for women-headed households (42% of the total), who played an active role in managing water resources. The project also had a positive effect on food security through the introduction of water infrastructures that supported agricultural productivity. Early warning systems for droughts and floods were another area of success, with more than 525,000 people (52% of whom were women) benefiting from early warning weather forecasts or flood alerts, enhancing their ability to prepare for and respond to climate-related risks.

Efficiency: Efficiency was a hallmark of the IWRM project, demonstrated by the effective use of local labor and resources in constructing water infrastructure. Community members were deeply involved in project implementation, which reduced costs and accelerated timelines. The use of local labor for stone-laying, rangeland rehabilitation, and the formation of water committees ensured a high level of local ownership and minimized dependency on external contractors. Furthermore, the project's integration with existing donor programs and government initiatives allowed for the efficient pooling of resources, avoiding duplication and increasing the scale of impact. The project's adaptability in the face of external challenges, such as security concerns and the COVID-19 pandemic, also demonstrated its efficient use of resources and flexibility in implementation.

Sustainability: The project showed strong potential for sustainability due to its emphasis on community involvement and institutional support. The formation of local water management committees ensured that communities had a vested interest in maintaining and operating water infrastructure, such as dams and berkads, long after the project ended. These committees implemented cost-sharing mechanisms, such as hiring watchmen, further enhancing the sustainability of the infrastructure. The project also laid the groundwork for institutional sustainability by supporting the creation of the Ministry of Environment and Climate Change at the federal level, along with designing its strategic and operational frameworks. While charcoal burning and deforestation remain potential environmental threats, the project's overall infrastructure design mitigated most long-term environmental risks. Future sustainability efforts will need to focus on continuous technical training in areas like solar system maintenance and fodder management.

Impact: The IWRM project had a significant impact across key areas, particularly in improving water access, agricultural productivity, and community resilience to climate change. Through the construction of water storage systems and rangeland rehabilitation, communities enhanced their ability to manage water resources, boosting agricultural yields and livelihoods. Women's involvement in water management and training programs empowered them economically and elevated their roles in decision-making, advancing gender equality. The project also promoted peacebuilding by reducing inter-clan conflicts over water resources and fostering cooperation among pastoralists. It played a crucial role in state-building, advancing SDG 16 by improving intergovernmental cooperation through coordination platforms that brought together federal and member state governments. These efforts reduced tensions and fostered collaboration. Additionally, the project supported the creation of the Ministry of Environment and Climate Change, helping develop its policy and operational frameworks, strengthening Somalia's capacity for environmental governance, and aligning it with international standards. Overall, the project enhanced water security and contributed to peace and stability in the region.

Gender Equality and Women's Empowerment: The project made notable contributions to gender equality by involving women in key decision-making roles, particularly through water management committees. Women were also provided with training in areas such as dairy production and fodder management, which improved their economic standing and supported Somalia's broader gender equality objectives. These efforts not only increased women's participation in the labor force but also empowered them to take on leadership roles within their communities. The inclusion of women in governance structures further contributed to long-term sustainability and community resilience, ensuring that gender perspectives were fully integrated into water resource management.

Inclusivity (LNOB/PwD): The IWRM project effectively mainstreamed the Leave No One Behind (LNOB) principle by ensuring that marginalized groups, including people with disabilities (PwDs), were actively involved in project activities. PwDs participated in water management committees and training programs, ensuring their inclusion in both the design and implementation phases. This approach not only fostered greater equity but also ensured that the needs and perspectives of PwDs were considered in the long-term maintenance and governance of water resources.

Key Challenges Identified:

1. Security and Political Instability: Persistent insecurity and fragmented governance structures in some regions disrupted project activities and stakeholder participation, leading to delays and resource inefficiencies.
2. Budget Constraints and Overruns: The project exceeded its initial budget allocation due to unforeseen costs associated with security, logistical challenges, and the expansion of activities, highlighting the need for more robust financial planning.
3. High Staff Turnover: Frequent turnover among project staff affected continuity and institutional memory, particularly in remote and conflict-affected areas.
4. Data Limitations: Inadequate baseline data and challenges in collecting disaggregated, real-time data hindered the project's ability to measure progress effectively, particularly regarding cross-cutting issues such as gender and inclusion.
5. Cultural and Gender Barriers: Socio-cultural norms limited the engagement of women and marginalized groups in some regions, reducing the inclusivity of project outcomes despite targeted efforts.
6. Limited Sustainability Planning: While replication efforts were included in the exit strategy, financial and political constraints posed risks to the long-term sustainability of the project's outcomes.

4.3 Recommendations

Per outcome area, a number of specific recommendations ("recs.") is herewith being submitted.

Module A – Policy component (Component 1: National Integrated Water Resource Management Strategy and capacity building for national, sub-national, district and community level actions)

- Rec. 1: Commission a feasibility study to look into suitable geographic areas and the objective demand and need for follow-up scaling of the IWRM approach, possibly through a triple nexus portfolio consisting of customized follow-up projects, by employing an area-based/regional approach, to expand and replicate lessons learned and best practices from the IWRM project, across federal States, all relevant sectors and related UN portfolios (Addressees: Relevant UNDP-Federal and Central Government entities (MoEWR, MoA, MoEnv/CC); Degree of priority: high; Timeline: short)
    - ⇨ Rationale/evidence-based justification: Based on established proof-on-concept

- Rec. 2: Continue efforts to establish cross-border river management authorities in view of introducing cooperation and coordination for joint river management of the Shebelle and Juba rivers, with adjacent countries Ethiopia and Kenya, to promote sustainable water development (Addressees: UNDP, UN Mission, Federal Government; Degree of priority: high; Timeline: sustained/mid- to long-term)
    - ⇨ Rationale/evidence-based justification: RBMAs constitute the missing link for IWRM in Somalia

Module B – Technology Transfer component (Component 2: Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood prone areas)

- Rec. 3: Launch an applied research study to assess the feasibility of introducing community level monitoring including such features as i. institutional linkage with regional water governance structures to connect community data collection with national MIS systems; ii. dissemination of, and training on use of, DRM/CC and water testing technology to help in collecting continuous real-time, ground level data on climate and environmental phenomena including droughts and floods (water levels, temperature/humidity, soil moisture, presence of flora and fauna etc.); and iii. water quality testing to complement the limited number of official water laboratories (also address WASH-related health concerns via UNICEF/WHO). (Addressees: UNDP, IPs, Regional Member States' respective counterpart institutions; Degree of priority & urgency: medium; Timeline: short- to mid-term)
    - ⇨ Rationale/evidence-based justification: Address health concerns linked to stagnant water (water-borne disease vectors or diseases like malaria, zika, bilharzia etc.) including prevention or mitigation of water source contamination.

- Rec 4.: Linked to above recommendation, open related TVET/academic pathways for best performers through scholarships to enhance local level data collection and ensure that the use of technologies and data is tailored to local needs and conditions in the interest of promoting project sustainability, community resilience and awareness. (Addressees: UNDP, IPs, TVET institutions; Degree of priority: medium; Timeline: mid-term)
    - ⇨ Rationale/evidence-based justification for no. 3 & 4: Harness existing community level buy-in and further spur levels of ownership by introducing beneficiary level monitoring to complement limited institutional M&E capacity.

Module C – Livelihoods component / agropastoral support (Component 3: Improved water management and livelihood diversification for agro-pastoralists)

- Rec. 5: Ensure continuous follow-up at community level in project sites via IPs in terms of
    - organizing refresher trainings (including virtual/hybrid formats) to ensure sustainability and collect related impact level data (food security situation, conflict management within and between villages/pastoral clans etc.);
    - forming a pool of regional/national IWRM champions as master trainers selected among the most capable individuals at water committee level in supported villages (these individuals could be used to propagate the approach during a scale-up/expansion phase; transport/emoluments/incentives to be provided; N.B.: Specific selection mechanisms would need to be identified but could potentially range from direct appointment by proven merit and experience to a combination of content based and pedagogical tests, or both; likewise, a regime of suitable incentives and support mechanisms would need to be conceived and established);
    - setting up a virtual community of practice by linking up water committees, solar equipment experts, fodder producers etc.

  (a.-c. / Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority: medium; Timeline: mid-term)

=> Rationale/evidence-based justification: Addressing need to further bolster capacity at project site level in the interest of sustainability.

- Rec. 6: Consider follow-up action via, or in the form of a JP together with, UNICEF and/or ILO possibly through collaboration with TVETs, to establish water pipes linking water basins with households, focusing on WASH and horticultural usage of water resources at household level. (Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority: medium; Timeline: mid-term)

  => Rationale/evidence-based justification: A direct household level connection through water pipes would allow households in the village center to benefit from water for sanitary and hygienic purposes and applications such as water toilets, showers, laundry etc.).

- Rec. 7: Address existing needs for solar technology expertise: invest into TVET solar training to build local capacity regarding solar power installation, maintenance, repairing (for water pumps, roof top solar for power etc. (programme implication: TVET, local economic businesses/SMEs) (Addressees: UNDP, IPs, TVET institutions, water committees/communities; Degree of priority & urgency: Medium to High; Timeline: short to mid-term)
  - ⇨ Rationale/evidence-based justification: Address the need for solar maintenance experts and potential synergies in view of solar potential and latent demand for affordable clean energy, and link this to local job creation.

Module D - KM Tier (AWP Outcome Area 4)

- Rec. 8: Launch a set of applied research studies to verify or refute key assumptions and test relevant hypotheses and innovative models' viability regarding general functionality and potential for replication and scale-up (Addressees: UNDP, federal & regional ministries; Degree of priority: medium; timeline: medium to long term)

<u>Tier 1: Pilot studies</u>

i. Iterative mini-ranch approach for rangeland rehabilitation purposes in drought-affected areas with cattle presence (cattle to be enclosed for several days; cattle's hooves break up topsoil-urine/dung fertilization);
ii. Pilot biogas approach with PVC bladders in riverine areas; link to introduction/up-scaling of cooling technology of dairy products (milk, butter, cheese, yoghurt etc.; could also be linked to TVETs)
iii. Pilot cooperative approach
  a. collective funding to pay tractor owners, or self-financing of tractor purchase;
b. introduce/ensure better transport (milk tankers etc.)
c. purchase of back-up generators for water pumps
d. maintenance and repairs-oriented micro-insurance fund for maintenance/repairs/ investments

=> Rationale/evidence-based justification: Piggy-back on accomplishments and opportunities, in view of replication/scaling (rather than proof-of-concept).

Tier 2: Feasibility studies

i. Pilot camel hair textile
ii. Waste water recycling
iii. Drip technology for greenhouses/horticulture
iv. Unless already done during original feasibility study, look into possibility of karez/turpan/qanat system or adding complementary well boring to address phases of lack of water due to drought

=> Rationale/evidence-based justification: Piggy-back on accomplishments and opportunities, in view of proof-of-concept.

Tier 3: Tracer/KAP/survey approach re impact level effects (linked to M&E and long term/impact level indicator design)

i. Local SDG effects on institution building and interclan peace/stabilization
ii. Copy-cat dynamics (who-why-how etc.): i.a., check quality of workmanship and risks assessment for general scheme of project sites etc. Also, consider handbook or reference material for dissemination and uptake of design by private investors and communities, on their own. Also, for ToT on IWRM infrastructure construction and maintenance targeting foremen and local bricklayers/labourers in general, in view of replicating and scaling. Also investigate how much of the co-financing was invested into infrastructure design copying.
iii. IWRM as pull factor (migration): positive and negative effects (e.g., reinvigorating communities/urbanization, but also risk of overburdening them with rapid population growth)
iv. SDG study on food security effects (longer-term effect on calorific intake, wasting, stunting etc.)
v. SDG16
vi. SGBV data
vii. GEWE data (focus on positive spin-off effects regarding gender equality and women's empowerment)

=> Rationale/evidence-based justification: Piggy-back on accomplishments and opportunities, in view of enhancing result and M&E framework at higher-level outcome and impact level.

Module E – Overarching Issues

In terms of overarching challenges, related recommendations (addressees: lead ministries, UNDP; priority: high; timeline: medium to long term) how to reduce, mitigate and manage them would be:

Rec. 9: Strengthen Security and Risk Mitigation Measures: Develop flexible implementation plans that incorporate contingency measures for operating in high-risk areas.
Rec. 10: Improve Financial Planning and Oversight: Allocate contingency funds in future projects to manage unforeseen costs and establish stricter budgetary controls to prevent overruns.
Rec. 11: Enhance Staff Retention Strategies: Implement competitive compensation and professional development programs to reduce turnover and retain skilled personnel.
Rec. 12: Invest in Data Systems: Strengthen baseline studies and invest in data collection and management systems, particularly for monitoring cross-cutting issues such as gender equality and inclusion.
Rec. 13: Address Cultural Barriers: Expand community sensitization programs and engage local leaders to advocate for the participation of women and marginalized groups.
Rec. 14: Ensure Sustainability and Replication: Develop comprehensive replication and sustainability plans with defined roles, resources, and timelines, supported by ongoing stakeholder engagement and capacity building.

In terms of cross-cutting issues, related suggestions are mainstreamed across the various recommendations listed avove. In addition, to boost cross-cutting concerns, introducing a comprehensive gender action plan with clear, measurable indicators to enhance systematic monitoring of gender-related outcomes ought to be considered. Similarly, in view of providing an additional boost to social inclusion concerns, targeting mechanisms to incorporate marginalized populations should be further deepened and expanded, coupled with additional training and resource allocation. Last but not least, environmentally sustainable practices across project activities should be further deepened to ensure consistent implementation through training and policy alignment.

4.4 Lessons Learned

The GEF IWRM project offers several valuable lessons based on its design, implementation, and outcomes. These lessons encompass adaptive management, financial management, community engagement, gender equality, and technical sustainability, providing insights that can inform the design and implementation of future projects aimed at improving water governance, climate resilience, and sustainable livelihoods.

1. Adaptive Management is Critical for Project Success
One of the key lessons learned from the GEF IWRM project is the importance of adaptive management in the face of unforeseen challenges. The project encountered several external obstacles, such as political instability, security risks, and climate-related disruptions (e.g., droughts and floods). Rather than being derailed, the project's ability to modify its work plans by changing implementation timelines, reallocate resources, and implement logistical solutions (such as switching to virtual consultations or radio-based outreach during COVID-19 restrictions, or transporting equipment and staff by air rather than by ground vehicle due to security concerns along the road) enabled it to stay on course.

- Lesson: Projects operating in fragile contexts must build in flexibility and emphasize risk management strategies from the outset. Adaptation measures should include revising work plans, adjusting timelines, and modifying engagement strategies based on evolving circumstances.
- Application: Future projects should incorporate robust risk management frameworks that are regularly updated to account for political, environmental, and social dynamics.

2. Local Ownership and Participation Enhance Sustainability
The project demonstrated that engaging communities from the design to the implementation phase significantly enhances the sustainability of interventions. Water management committees, composed of community members—including women and persons with disabilities (PwDs)—were central to ensuring the long-term maintenance of water infrastructure such as berkads, boreholes, and dams.

- Lesson: Involving communities in decision-making processes ensures that the infrastructure and interventions are locally relevant and tailored to the specific needs of the target population, fostering a sense of ownership and responsibility for maintaining the outcomes.
- Application: Future projects should actively engage local stakeholders in the co-design and co-management of interventions, ensuring that community members have both the responsibility and the capacity to sustain the project results beyond its life cycle.

3. Gender Mainstreaming Transforms Community Dynamics
A significant achievement of the project was its success in mainstreaming gender into all aspects of water management and economic activities. The project ensured that women comprised at least 30% of the members on water management committees, trained women in income-generating activities such as dairy production and fodder storage, and shifted traditional gender roles within the communities. Moreover, constructing water points closer to homes helped reduce SGBV risks by reducing the distances women had to travel to fetch water. This also freed up time for girls' education (homework) since otherwise many if not most girls would have had to spend several hours per day on fetching water from distant water sources. The strengthened role of women had repercussions at household level in the sense of fostering household

resilience to external shocks. The substantial female component among decision makers on community-level water committees also reduced the risk of water-related conflicts.

- Lesson: Gender-sensitive approaches not only empower women economically but also transform social norms regarding gender roles, leading to more inclusive and equitable community governance.
- Application: Future projects should incorporate gender equality targets and integrate women into leadership roles in decision-making processes. Additionally, livelihood programs should be designed to support both economic and social empowerment for women.

4. Disability Inclusion Promotes Social Equity
The project's success in integrating PwDs into its governance structures, training programs, and infrastructure design underscored the importance of inclusivity in development projects. In regions like Somaliland, PwDs were given leadership roles within water management committees, ensuring their voices were heard in decisions regarding water distribution and maintenance.

- Lesson: Actively including marginalized groups, such as PwDs, in governance and capacity-building initiatives promotes social equity and ensures that project benefits are distributed equitably.
- Application: Future projects should prioritize the inclusion of PwDs and other marginalized groups in both governance and technical training programs, making sure that all interventions are accessible and inclusive.

5. Robust Financial Management Enables Expanded Impact
The GEF IWRM project was able to mobilize substantial co-financing—almost seven times the original budget—significantly expanding its scope and impact. This was achieved through strategic partnerships with organizations such as FAO-SWALIM, IGAD, and local governments, which contributed additional resources to support project activities. The robust financial systems ensured that the project could respond to emerging opportunities and challenges while maintaining transparency and accountability.

- Lesson: Effective financial planning and the ability to leverage co-financing greatly enhance a project's potential impact, enabling it to go beyond its initial scope and deliver additional outcomes.
- Application: Future projects should place a strong emphasis on building financial partnerships from the outset, ensuring that resources are maximized to support both direct project activities and complementary initiatives.

6. Capacity Building Strengthens Long-Term Impact
The project's investment in capacity-building initiatives was critical to ensuring that national, regional, and local stakeholders could continue managing water resources sustainably after the project's completion. Training programs for government officials, community leaders, and local technicians enabled them to maintain infrastructure, manage water governance, and implement climate adaptation measures. effectively. However, gaps in technical capacity—particularly for maintaining solar-powered water systems—highlighted the need for ongoing support.

- Lesson: Capacity-building efforts are essential for the long-term sustainability of infrastructure and institutional frameworks, but they require ongoing training and support to address technical gaps.
- Application: Future projects should ensure that capacity-building efforts are continuous and evolve to address emerging technical needs, especially for complex systems like solar-powered infrastructure.

7. Environmental Sustainability Requires Continued Monitoring
The project made significant contributions to environmental sustainability through afforestation, rangeland rehabilitation, and the introduction of water retention systems. These interventions helped mitigate environmental degradation and improved land productivity. However, ongoing threats such as charcoal production and overgrazing present risks to the sustainability of these efforts.

- Lesson: Environmental gains can be undermined by ongoing and emerging threats unless continuous monitoring and community engagement are maintained to manage these risks.

- Application: Future projects should include long-term environmental monitoring plans, with provisions for continuous community involvement in environmental governance and land management.

8. Institutional Strengthening is Key for Policy Continuity
The project's establishment of the Integrated Water Resource Management (IWRM) Strategy and River Basin Management Authorities (RBMAs) was a critical step in strengthening water governance in Somalia. These frameworks ensured that national and regional governments could coordinate water resource management efforts effectively, laying the groundwork for long-term policy continuity.

- Lesson: Strengthening institutional frameworks and supporting policy development at both the national and regional levels is essential for ensuring that water resource management practices are sustainable and integrated into broader development strategies.
- Application: Future projects should prioritize the development of institutional frameworks that can outlive the project, ensuring that governments and communities have the capacity and systems in place to manage resources sustainably.

To conclude, it can be said that the GEF IWRM project provided numerous lessons that can inform future initiatives aimed at climate resilience, water management, and sustainable development. Key among these are the importance of adaptive management, community ownership, gender mainstreaming, and capacity building. By integrating inclusivity, sustainability, and strong financial management into its design and implementation, the project not only achieved its objectives but also provided a blueprint for future interventions in similar contexts.

5. Annexures

5.1 Terms of Reference (ToR)

Individual Contractor / International Team Leader
Terminal Evaluation of IWRM Project

1. INTRODUCTION

In accordance with United Nations Development Programme (UNDP) and Global Environment Facility (GEF) Monitoring and Evaluation policies and procedures, all full and medium-sized UNDP-supported GEF-financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) set out the expectations for a Terminal Evaluation (TE) of the Project: *Support for Integrated Water Resources Management to Ensure Water Access and Disaster Reduction for Somalia's Agro-Pastoralists* (PIMS 5464) implemented through the UNDP Somalia direct implementation modality, where the UNDP Somalia Country Office is the implementing Partner (IP). Letters of the agreement were signed with the Ministries of Energy and Water Resources at Federal and State levels, Pastoral and Environmental Network in the Horn of Africa (PENHA), and Ministry of Environment Rural Development, Ministry of Water Resources (MoERD) of Somaliland.[14] The project started on 23 July 2019 and is in its final year of implementation. The Project has a duration of five years (November 2019-September 2024) including a 10-month No-cost extension. The Terminal Evaluation process follows the guidance outlined in the document "Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects" (TE_GuidanceforUNDP-supported GEF-financedProjects.pdf**).**

2. PROJECT BACKGROUND AND CONTEXT

Project Summary Table

PROJECT/OUTCOME INFORMATION	
Project/outcome title	Project Title: Integrated Water Resource management Project (IWRM) Somali: Mashruuca Mareeynta Kheyraadka Biyaha
Quantum ID /	00112311
Corporate outcome and output	The project contributes to the UN Strategic Framework Priorities: • SP4: Social Development • OUTCOME 4.2. By 2025, the number of people impacted by climate change, natural disasters and environmental degradation reduced • OUTPUT 4.2 People Centred environment & climate smart strategies are put in place for sustainable natural resources management (NRM), including water, forests, rangelands, arable lands, and ocean fisheries.
Country **Region**	Somalia Project duration in months: 5 years including a 10-month no-cost period. Geographic zones for project implementation: Mogadishu, Jubaland, Southwest, Hirshabelle, Puntland and Galmudug
Date project document signed	23 July 2019; Start: 14 November 2019 Planned end: 30 September 2024

[14] A couple of changes have occurred in the recent past that are not accurately reflected in the ToR since they were conceived before these changes could be foreseen. For the sake of accuracy it is herewith noted that the Ministry of Environment and Rural Development of Somaliland has had its name changed to Ministry of Environment and Climate Change, in the meantime. In addition, the mandate of the rural development has shifted to the Ministry of Livestock.

PROJECT/OUTCOME INFORMATION	
Project dates	13 November 2019
Project budget	USD 10,331,000 (GEF Trust Fund/LDCF: USD 8,831,000; UNDP TRAC: USD 1,500,000)
Project expenditure at the time of evaluation	USD 12,144,089.40 (GEF Trust Fund/LDCF: USD 7,240,172.21; UNDP TRAC: USD 4,903,917.19
Funding source	GEF-LDCF2 and UNDP TRAC resources
Implementing party [1] UNDP	Government Counterparts: Ministry of Energy, and Water Resources (MoEWR-FGS), Ministry of Environment and Climate Change (MoECC-FGS), Ministry of Environment and Climate Change (MoECC-Puntland, Puntland Water Development Agency (PWDA), Ministry of Environment and Climate Change (MoECC-Somaliland, and Ministry of Water Resources (MoWR), Somaliland - Main Beneficiary Ministry of Energy, and Water Resources (MoEWR-FGS)

Somalia faces the dual impact of recurrent droughts and regular flooding due to climate change. These environmental challenges lead to failed crops, loss of livestock, and chronic food insecurity. The compounding effects of conflict and climatic shocks, including droughts and floods, have led to an estimated 8.3 million people needing humanitarian assistance. Additionally, 1.3 million people were displaced last year alone. These risks are further compounded by institutional fragmentation, horizontally across different ministries and agencies and vertically between the federal government and agencies governed by its member states. Decades of civil unrest have undermined the effective governance, coordination and collaboration within and across public institutions for public service delivery, including services that promote climate resilience. Additionally, communities have limited ability to prepare for future changes in climate including changing rainfall patterns, extreme events like droughts and floods, and availability of water and fodder for animals. Water scarcity continued to pose a significant threat to Somalia, impeding the nation's economic and social progress. Across the country, there has been a noticeable trend of diminishing surface and groundwater reserves, coupled with a rise in the frequency of droughts and floods. These patterns are expected to intensify in the future.

Despite these challenges, The United Nations Development Programme (UNDP) and the Global Environment Facility (GEF)/ Least Developed Countries Climate Funds two (LDCF2) has helped communities increase their climate resilience and adaptation through reinforced technical and operational capacities at Federal and Federal Member States to manage water resources sustainably to build the climate resilience of agro-pastoralists, national institutions to formulate policies and undertake legislative and institutional reforms for improved water governance and management in the context of climate change. The project also built the capacities of the pastoralists to translate national policies to on-the-ground implementation to become more resilient to climate change by supporting them to have the capacities to practice water conservation and management.

The project was designed to "*Support for Integrated Water Resources Management to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists" and* is a US$10,331,000 Climate Change Adaptation project funded by Global Environment Facility (GEF) and UNDP Core Resources. The additional Co-financing of the project stands at USD$ 68,244,000. The project document was approved by GEF on 23 July 2019. The approved project was further presented to the Local Appraisal Committee (LPAC) on 18th September 2019 for endorsement, which was followed by a project launch on 12th November 2019 while the project Inception workshop was held in November 2019.

The Global Environment Facility (GEF)/ Least Developed Countries Climate Funds two (LDCF2) directly supports integrated water resources development and management for more than 350,000 agro-pastoralists across Somalia. The overall objective is to "Reinforce technical and operational capacities at Federal and Federal Member States to manage water resources sustainably to build the climate resilience of agro-pastoralists". To achieve this objective, the project will build the capacities of national institutions to formulate policies and undertake legislative and institutional reforms for improved water governance and management in the context

of climate change. The project will also build the capacities of the pastoralists to translate national policies to on-the-ground implementation to become more resilient to climate change by supporting them to have the capacities to practice water conservation and management.

The project follows an inclusive, participatory, and Integrated Water Resources Management approach to significantly improve Water Access and Disaster Risk Reduction for the agro-Pastoralist communities. Also, the project focuses on the development of a multi-sectoral Integrated Water Resources Management (IWRM) Strategy, capacity-building support in planning sustainable water resources development schemes for all states down to local levels and improving groundwater and surface water sources increasing ease resilience and promoting agro-pastoral value chains.

The project will be implemented through three strategically linked components, each of which contains a set of outputs with their respective activities. At the end of the project, each of the three components will result in an outcome, including:

1. Robust National water resource management policy integrating clear national and state responsibilities,
2. Accelerated Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood-prone areas, and
3. Improved water management and livelihood diversification for agro-pastoralists.

The first component will focus on providing an enabling environment with the development of an IWRM strategy to achieve the following outputs:

1. Policy, legislative and institutional reform for improved water governance, monitoring, and management in the context of climate change.
2. Strengthened government capacities at national and district levels to oversee sustainable water resources management.

The second component will be to Expand the hydro-geo-meteorological monitoring networks to achieve the following outputs:

1. Improved water resource data collection and drought/flood indicator monitoring networks in Somalia's Arid and Semi-Arid Lands (ASALs)
2. Strengthened technical personnel from the National Hydro-Meteorological Services in IWRM and flood and drought forecasting.
3. A better understanding of the current hydrological and hydrogeological situation

The third component will focus on surface and groundwater to support Agro-pastoral economic and social development to achieve the following outputs:

1. Reduced vulnerability for Agro-pastoralists to water resource variability through investment in water resource management infrastructure and training on the livestock value chain.
2. Increased awareness of local communities on rainwater harvesting, flood management, and water conservation during rainy seasons.
3. A national groundwater development action plan that will increase access to water for pastoral communities in drought-affected areas taking into consideration aquifer characteristics, extent, location, recharge, GW availability, and sustainable yields.

Through an inclusive and participatory approach, the project will strive to integrate gender by:

- Considering specific roles and needs of women and men and those most vulnerable in water management and in having contingency plans for water management at times of climate extremes.
- Building capacities on the national, state, and local levels to enhance the livelihoods of the most vulnerable, women, and youth. Capacity building will ensure that water service providers and governments account for sustainable services for all.
- Ensuring sustainable use of water by promoting innovative gender-responsive solutions based on improved capacity, knowledge, new self-employment opportunities, and access to planning and decision-making. These solutions will produce changes in status and role of women and men and to some extent transform gender relations to make them more equal. For example, improved access of women to water management will have an empowering impact on their status and consideration of

their role in community affairs. Livestock value chain exploitation will improve women's and youth's economic situation and consequently their role and status in decision-making.

- Increasing women's participation in development of environmentally sound, cost-effective practices and methods of sustainable water resource management and their widespread use by men and women. In this context the project will consider the roles played by women and men in finding alternatives when water resources are deficient.
- Piloting a gender action plan to monitor frequency of project activities, outputs, and impacts to women empowerment and gender diversity.

Additionally, the project conforms to the GEF Strategy on Climate Change Adaptation. These components are also aligned with the priorities of the National Adaptation Programme of Action (NAPA) for Somalia finalized by the Federal Government of Somalia with the support of UNDP and GEF. In addition, the Project supports the Sustainable Development Goals (SDGs) 13 on climate action, 2 on food security and 6 on water access, National Development Plan, and UNSDCF/Country Programme Document. Finally, the project supports Somalia in aligning with the New Way of Working. This collaborative agreement, led by the UN Somalia Country Office and Humanitarian teams, aims to strengthen the humanitarian-development nexus with the goal of ending needs while reducing risks and vulnerability to climate change.

Further, the MTR highlighted that a multitude of factors have posed challenges and caused delays in the project's progression. The COVID-19 pandemic hindered the project's ability to effectively engage with wider communities due to required physical distancing. Concurrently, the global economic downturn and escalating inflation, which led to increased construction, energy and food prices, necessitated modifications, and adaptations in the implementation of civil works due to budgetary constraints. These factors further complicated the already intricate processes involved in procuring equipment, goods, and materials from international sources. Moreover, the fragile security situation in specific regions of Somalia, particularly its Southern and Central States, resulted in significant delays in the execution of civil works. Finally, the extended federal election process from the latter half of 2020 to May 2022 also decelerated government procedures, as Federal government agencies were heavily involved in the election and negotiation process to establish consensus.

The following results were ensured by completion of the project:

- Analysis for River Basin Management and engagement of key stakeholders to establish the governance systems for River Basin Management Authorities (RBMAs) for the Juba and Shabelle rivers.
- A National Integrated Water Resource Management (IWRM) Strategy with clearly established national and district responsibilities to support a decentralized approach to water governance that ensures equitable water access for vulnerable populations and sectors.
- Development and application of water resources management curricula and programmes at educational and vocational institutes.
- Enhanced water quality analysis equipment and capacity building of technicians in five States
- Improvement of groundwater and surface water data collection in the Arid and Semi-Arid Lands (ASALs) and in the Juba and Shabelle river basins through the procurement and installation of river gauges, flow meters, and rain gauges.
- Development of a National Groundwater Development Action Plan that supports sustainable and cost-effective groundwater extraction.
- Establishment of a National Hydro-Meteorological Service (NHMS).
- Constructing and rehabilitating physical assets to reduce the impacts of floods and droughts, Provision of training of trainers to reinforce their capacities to disseminate and sensitize communities on various value chains, such as milk, hide, meat, cheese, among others.
- The reforestation of rangelands.

3. TE PURPOSE

The TE report will assess the achievement of project results against what was expected to be achieved and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency and assesses the extent of project accomplishments. The final evaluation report will assess the progress and achievement of the project's objectives and outcomes as specified in the project document. The TE will also examine the project strategy and its risks to sustainability. This evaluation is the first one, in this regard, the results and recommendations of the final review will be essential to know the achievements and main accomplishments of the project. The TE focuses on determining the relevance, impact, effectiveness, efficiency, and sustainability of UNDP work in order to make adjustments and improve contributions to development. The TE is also, expected to inform its contribution to the Five-year Country Programme (2021-2025), NDP-9 and United Nations Sustainable Development Cooperation Framework (UNSDCF).The results of the evaluation will allow donors, UNDP, and the government to draw lessons learned from the project. Completion of the final evaluation process is scheduled for June 2024.

The TE process must follow a collaborative and participatory approach ensuring close engagement with key participants including the Commissioning Unit (the UNDP Country Office), Regional Technical Advisor, Regional Programme Associates, Country Office M&E Focal Points and Programme Officers, Government counterparts including the GEF Operational Focal Point (OFP), the Nature, Climate and Energy Vertical Fund Unit, Project Board and other key stakeholders. Ideally, the TE should occur] during the last few months of project activities, allowing the TE team to proceed while the Project Team is still in place, yet ensuring the project is close enough to completion for the evaluation team reach conclusions on key aspects such as project sustainability.

The evaluation will mainly focus on assessing the relevance, effectiveness, efficiency, results, impact, coordination and sustainability of GEF IWRM project efforts and will be applied to all four components of the project.

The following are guiding questions within the framework of the evaluation criteria (to be reviewed/elaborated in the evaluation inception report).

Relevance

- Is the project relevant to the GEF Focal Area objectives?
- Is the project relevant the GEF biodiversity focal area and other relevant focal areas?
- Is the project relevant to Somalia's environment and sustainable development objectives?
- Is the project addressing the needs of target beneficiaries at the local and regional levels?
- Is the project internally coherent in its design?
- How is the project relevant with respect to other donor-supported activities?
- Does the project provide relevant lessons and experiences for other similar projects in the future?
- Is GEF IWRM project's theory of change clearly articulated?
- How did GEF IWRM project contribute towards and advance gender equality aspirations of the Government of Somalia?
- How well does GEF IWRM project react to changing work environment and how well has the design able to adjust to changing external circumstances?

Effectiveness and Results

- Has the project been effective in achieving the expected outcomes and objectives?
- How is risk and risk mitigation being managed?
- What lessons can be drawn regarding effectiveness for other similar projects in the future?

Efficiency

- Was adaptive management used or needed to ensure efficient resource use?
- Did the project logical framework and work plans and any changes made to them use as management tools during implementation?
- Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information?
- Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?
- Was project implementation as cost effective as originally proposed (planned vs. actual) •

Did the leveraging of funds (co-financing) happen as planned?

- Were financial resources utilized efficiently? Could financial resources have been used more efficiently?
- How was results-based management used during project implementation?
- To what extent partnerships/linkages between institutions/ organizations were encouraged and supported?
- Which partnerships/linkages were facilitated?
- What was the level of efficiency of cooperation and collaboration arrangements?
- Which methods were successful or not and why?
- Did the project efficiently utilize local capacity in implementation?
- What lessons can be drawn regarding efficiency for other similar projects in the future?

Coordination

- To what extent the project adopted a coordinated and participatory approach in mainstreaming gender into policies and programs?
- To what extent the project was effective in coordinating its activities with relevant development partners, donors, CSO, NGOs and academic institution?
- How extensively has the project involved individuals with disabilities?

Sustainability

- Were sustainability issues integrated into the design and implementation of the project?
- Did the project adequately address financial and economic sustainability issues?
- Are the recurrent costs after project completion sustainable?
- What are the main institutions/organizations in country that will take the project efforts forward after project end and what is the budget they have assigned to this?
- Were the results of efforts made during the project implementation period well assimilated by organizations and their internal systems and procedures?

- Is there evidence that project partners will continue their activities beyond project support?
- What degree is there of local ownership of initiatives and results?
- Were laws, policies and frameworks addressed through the project, in order to address sustainability of key initiatives and reforms?
- What is the level of political commitment to build on the results of the project?
- Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits?
- Are there adequate incentives to ensure sustained benefits achieved through the project?
- Are there risks to the environmental benefits that were created or that are expected to occur?
- Are there long-term environmental threats that have not been addressed by the project?
- Have any new environmental threats emerged in the project's lifetime?
- Is the capacity in place at the regional, national and local levels adequate to ensure sustainability of the results achieved to date?
- Is there potential to scale up or replicate project activities? •

Did the project's Exit Strategy actively promote replication?

- Which areas/arrangements under the project show the strongest potential for lasting long-term results?
- What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?

Gender equality and women's empowerment

- What factors contribute or influence GEF IWRM project's ability to positively contribute to policy change from a gender perspective and women's economic empowerment.

Disability inclusion

- The TE report will comprise a clear explanation of the methodology used, adequately address cross cutting areas including gender and human rights and include logical and well-articulated conclusions based on the findings which are linked to and supported by evidence. The TE will adhere to evaluation standards of integrity, accountability, transparency, and objectivity.

The TE will occur during the last months of project activities, allowing the TE team to proceed while the Project Team is still in place, yet ensuring the project is close enough to completion for the evaluation team reach conclusions on key aspects such as project sustainability.

4. TE APPROACH & METHODOLOGY

The TE report must provide evidence-based information that is credible, reliable, and useful. Citation to evidence is required in the reports and in alignment to the UNEG ethical guidelines. The TE team must use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the TE report.

The TE team will review all relevant sources of information including documents prepared during the preparation phase (i.e., Project Information Form, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including Annual Progress Reports, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation.

The TE team will review the baseline and midterm GEF focal area Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement and midterm stages and the terminal Core Indicators/Tracking Tools that must be completed before the TE field mission begins.

The evaluation will mainly focus on assessing the relevance, effectiveness, efficiency, results, impact, coordination, and sustainability of IWRM project efforts and will be applied to all four components of the project. The evaluation will follow GEF TE guidance and provide answers to the requirements under the findings section.

The UNDP Somalia CO with the project team is obliged to prepare final tracking tool and also provide information
about actual co-financing expenditure before the evaluation begins. The guiding questions within the framework
of the evaluation criteria (to be reviewed/ elaborated in the evaluation inception report are annexed as: https://docs.google.com/document/d/1iVNYOmI293SzsT-hfJbOGttUVnLMxD6a/edit?usp=sharing&ouid=101183427218989265382&rtpof=true&sd=true. The Final version, adjusted by the evaluator(s) should be presented in Inception TE. The TE team is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), Implementing Partners, the UNDP Country Office(s), and the Regional Technical Advisor, direct beneficiaries, and other stakeholders. The engagement of stakeholders is vital
to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to, executing agencies, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc.

The evaluation should employ a combination of qualitative and quantitative evaluation methods and instruments. The evaluation overall specific approach (e.g. contribution, theory of change approach or other) should be detailed in the inception and evaluation report highlighting how these approaches will lead to the required results. Likewise, the data collection and analysis methods and tools. The quality guidelines require review/ re-construction of the theory of change which will support developing the methodology and reviewing the evaluation questions. Stakeholders need to be mapped and the sampling approach needs to be detailed (a representative sample needs to be included).

Further, virtual tools will be used to conduct the interviews where field missions would not be possible. The specific design and methodology for the TE should emerge from consultations between the TE team and the abovementioned parties regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given the limitations of budget, time and data. The TE team must, however, use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs, are incorporated into the TE report. The final methodological approach including the interview schedule, field visits and data to be used in the evaluation must be clearly outlined in the TE Inception Report and be fully discussed and agreed upon between UNDP, stakeholders, and the TE team.

It is also important to highlight that in case of security or any other situation, if the TE team is not able to visit/travel to some locations, then the Terminal Evaluation might be conducted using questionnaires, and virtual interviews, but the evaluation team should be able to revise the approach in consultation with the evaluation manager and the key stakeholders depending on the country's context. These changes in approach should be agreed upon and reflected clearly in the TE Inception Report. The national expert consultant will have to play an important role in the evaluation and will, therefore, perform additional responsibilities. The main responsibility of conducting the national expert is attached as Annex I, which will be further elaborated on in the inception report. If a data collection/field mission is not possible then remote interviews may be undertaken by telephone or online (skype, zoom etc.). International consultants can work remotely with national evaluator support in the field if it is safe for them to operate and travel. No stakeholders, consultants or UNDP staff should be put in harm's way and safety is the key priority. A short validation mission may be considered if it is confirmed to be safe for staff, consultants, and stakeholders and if such a mission is possible within the TE schedule. Equally, qualified, and independent national consultants would be hired to undertake the TE and interviews in-country if it is safe to do so.

Additionally, the TE team is expected to conduct field missions to (locations), including the following project sites (list).

- Mogadishu – National
- Hargeisa - Somaliland
- Garowe - Puntland
- Dhusamareeb - Galmudug
- Jowhar - Hirshabelle
- Baidoa - Southwest
- Kismayo- Jubaland

The final TE report should describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses of the methods and approach of the evaluation.

5. DETAILED SCOPE OF THE TE

The TE will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see ToR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects (Guidance for Terminal Evaluations of UNDP-supported GEF-financed Projects). The evaluation will cover the whole project period, all the project components and locations including Mogadishu, Hargeisa, Garowe, Dhusamareeb, Baidoa, and Luuq.

The Findings section of the TE report will cover the topics listed below.

A full outline of the TE report's content is provided in ToR Annex C.

The asterisk "(*)" indicates the criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Safeguards
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design.
- Planned stakeholder participation.
- Linkages between projects and other interventions within the sector
- Management arrangements

ii. Project Implementation

• Adaptive management (changes to the project design and project outputs during implementation)

• Actual stakeholder participation and partnership arrangements

• Project Finance and Co-finance

• Monitoring & Evaluation: design at entry (*), implementation (*), an overall assessment of M&E (*)

• Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)

• Risk Management, including Social and Environmental Standards

iii. Project Results

• Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements

• Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)

• Sustainability: financial (*), socio-political (*), institutional framework and governance (*), environmental (*), the overall likelihood of sustainability (*)

• Country ownership

• Gender equality and women's empowerment

• Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)

• GEF Additionality

• Catalytic Role / Replication Effect and development innovation

• Progress to impact

iv. Main Findings, Conclusions, Recommendations and Lessons Learned

• The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on an analysis of the data.

• The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses, and results of the project, respond to key evaluation questions, and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues about gender equality and women's empowerment.

• Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.

• The TE report should also include lessons that can be taken from the evaluation, including best and worst practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that apply to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.

• It is important for the conclusions, recommendations and lessons learned from the TE report to include results related to gender equality and empowerment of women.

The TE report will include an Evaluation Rating Table, as shown in Annex F of the ToR Annex (https://docs.google.com/document/d/1IuqCEZiLfA80OI_5M0qeMi_I_YDQQOlO/edit?usp=sharing&ouid=101183427218989265382&rtpof=true&sd=true).

The evaluation needs to assess the degree to which the Project's supported or promoted gender equality, a rights-based approach, and human development. In this regard, United Nations Evaluation Group's guidance onIntegrating Human Rights and Gender Equality in Evaluation should be consulted.

6. TIMEFRAME

The total duration of the TE will be approximately 35 working days spread over a three-month period starting on 2 September 2024. The tentative TE timeframe is as follows:

Activity	Estimated No. of Working Days		Date of Completion	Location	Responsible Party
Inception Report					
Preparation period for TE Team (handover and documentation)	2 days	2 September 2024	Immediately after contract execution.	Remotely/email	Evaluation Manager & Project team
Submission of Draft Inception Report.	4 days	09 September 2024	No later than 2 weeks before the TE mission.	Home-based and submission via email	Evaluators
Finalization and validation of TE Inception Report;	2 days	09 September 2024	Within one week of submission of inception report.	UNDP Somalia Country Office	Evaluators/ Evaluation Manager
TE Mission					
TE mission: stakeholder meetings, interviews, field visits, etc.	10 days	10-25 September 2024	Within 5 weeks of contract signature.	Project sites in Somalia.	Evaluators with logistical support from UNDP where applicable.
TE mission wrap-up meeting and presentation of initial findings.	2 days	30 September 2024	At the end of the TE mission.	In-person	Evaluators
TE Report Writing					
Preparation and submission of draft evaluation report	7 days	09 October 2024	Within 3 weeks of completion of TE mission.	Home-based	Evaluators
Circulation of draft TE report for comments and consolidation of UNDP and stakeholders' comments on Draft Report	2 days	13 October 2024	Within one week of submission of draft TE report.	UNDP Country Office	Evaluation Manager
Incorporation of comments on draft TE report into Audit Trail & finalization of TE report and Debriefing with UNDP	1 days	18 October 2024	Within one week of receipt of UNDPs feedback on Draft TE report	Remotely/in-person	Evaluators
Preparation and issuance of management Response		25 October 2024		UNDP Country Office	Evaluation Manager
Completion and submission of Full TE report integrating additions and comments provided by UNDP to the UNDP CO	5 days	29 October 2024	Within one week of final debriefing	Home-based	Evaluators
Estimated total of working days for the TE	35 days				

7. TE DELIVERABLES

#	Deliverable	Description	Timing	Responsibilities
1	TE Inception Report	TE team clarifies objectives, methodology and timing of the TE	by 09 September 2024	TE team submits Inception Report to Commissioning Unit and project management
2	Presentation	Initial Findings	by 30 September 2024	TE team presents to Commissioning Unit and project management
3	Draft TE Report	Full draft report **(using guidelines on report content)** with annexes	by 13 October 2024	TE team submits to Commissioning Unit; reviewed by RTA, Project Coordinating Unit, GEF OFP
5	Final TE Report* + Audit Trail	Revised final report and TE Audit trail in which the TE details how all received comments have (and have not) been addressed in the final TE report **(as per guidelines on report content)**	By 29 October 2024	TE team submits both documents to the Commissioning Unit

* All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.[1]

8. TE ARRANGEMENTS

(i) The principal responsibility for managing the TE resides with the Commissioning Unit which will assign the evaluation manager. The Commissioning Unit for this project's TE is the UNDP Somalia Country Office (CO). Any dispute between parties shall be brought to the attention of UNDP immediately. Changes to the Contract shall be formalized in writing through a Contract Amendment prior to implementation of the change. The UNDP shall not be liable for cost overruns arising from informal agreements.

(ii) The UNDP CO Monitoring and Evaluation Specialist will act as the Evaluation Manager and will be responsible for the oversight of the whole evaluation process ensuring independence of the evaluation process and, that policy is followed. The IC will report directly to the Evaluation manager and will work closely with the Project team and the Ministries of Energy and Water Resources (MOEWR) and Environment and Climate Change (MOECC) of the Federal Government of Somalia (FGS), Puntland's Ministry of Environment and Climate Change (MOECC) and the Puntland Water Development Agency (PWDA) and Somaliland's Ministries of Environment and Climate Change (MOECC) and Water Resources (MOWR). However, Project staff will not participate in the meetings between the IC and evaluands.

(iii) The IC shall begin the TE after approval of the methodology submitted in the inception report and shall report to the UNDP Portfolio manager on a weekly basis.

(iv) The UNDP and key stakeholders in the evaluation shall review the draft inception and draft evaluation reports and provide an amalgamated set of comments to the IC within the agreed timeframe. The IC shall retain changes made in response to comments made by UNDP on the draft reports to show how the IC has addressed the comments. The final report will be approved by the evaluation commissioner.[1]

[1] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

(v) The UNDP Project Team shall provide all relevant documents required to facilitate the TE, set up stakeholder interviews, arrange field visits and coordinate with key stakeholders including the MoEWR and MoECC of the FGS, Puntland's MoECC and PWDA and Somaliland's MoECC and MoWR.

(vi) In the event of travel restrictions to Project sites, the TE team with support from the Project team will use alternative means of interviewing stakeholders and data collection, e.g., zoom, Teams or Skype interviews, mobile questionnaires, etc.,) including field visits by the National team expert under the team leader's guidance.

(vii) The IC shall be required to submit to the UNDP Somalia Procurement Unit a completed and signed IC Statement of Health.

(viii)The IC is required to have a personal laptop computer.

9. DUTY STATION

Home-based.

10. TE TEAM COMPOSITION & REQUIRED QUALIFICATIONS

A team of two independent individual contractors (Evaluators) will conduct the TE; one team leader with exposure to projects and evaluations at an international level and one national (Somali) team expert. The team leader will be responsible for the overall design and writing of the TE report. The national team expert will assess emerging trends with respect to regulatory frameworks, budget allocations, capacity building, work with the Project Team in developing the TE itinerary, etc. The national team evaluator will also act as a focal point for coordinating and working with relevant stakeholders at federal and federal member state levels and will work closely with the team leader to support any work as laid out in this TOR.

The evaluator(s) cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document) and should not have a conflict of interest with the project's related activities. The selection of Evaluators will be aimed at maximizing the overall "team" qualities in the following areas; Team Leader; natural or environmental science background with global/international perspectives and experience in integrated water resource management and the national team expert with experience in environmental management in Somalia.

Qualifications for Team Leader

Education
At least a Master´s degree in integrated water resource management, natural sciences, natural resource and environmental management, development studies, economics, climate change mitigations and adaptations or other closely related field.

Experience

- Relevant experience with results-based management evaluation methodologies.
- Experience applying SMART indicators and reconstructing or validating baseline scenarios.
- Competence in adaptive management, as applied to Integrated Water Resources Management (IWRM), Environmental Sciences, Climate Change Adaptation, Economics.
- Substantive and proven experience of conducting terminal reviews in least developed countries especially in fragile contexts.
- Experience in the usage of various evaluation methodologies. Proven experience in data collection, instrument development and data analysis both qualitative and quantitative is essential.
- At least 10 years' proven experience with terminal evaluation/review of donor-driven projects (preferably GEF, GCF, UN or other Intergovernmental projects).
- Demonstrated understanding of cross cutting issues mainly related to gender, Multi-Focal Areas and Integrated Water Resources Management (IWRM) area, experience in gender responsive evaluation and analysis.
- Implementation of remote evaluations is an asset.

Corporate Competencies
(i) Demonstrates integrity and fairness by modelling the UN/UNDP values and ethical standards.
(ii) Promotes the vision, mission, and strategic goals of the UN/UNDP.
(iii) Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.
(iv) Treats all people fairly without favoritism.
(v) Fulfils all obligations to gender sensitivity and zero tolerance for sexual harassment**.**

Functional Competencies
(i) Knowledge of UNDP and GEF mandate, policy, procedures, and programme management
(ii) Strong knowledge of results-based management and strategic planning processes.
(iii) Excellent analytical skills to review, triangulate and synthesise information from different sources and draw key themes/issues from the information to formulate in-depth analytical reports with articulated recommendations.
(iv) Strong communication and interpersonal skills, and ability to articulate ideas in a clear concise style to cross-cultural audiences.
(v) Strong time management skills and ability to work under pressure to meet established timelines with flexibility within cost and quality standards.
(vi) Knowledgeable of participatory monitoring and evaluation processes.
(vii) Knowledge and effective use of computer software, especially MS Word, MS Excel, and PowerPoint.

Language requirement

Fluent in written and spoken in English. Knowledge of any other UN official language is an asset.

11. EVALUATORS ETHICS

The TE team will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluator must safeguard the rights and confidentiality of information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing the collection of data and reporting on data. The evaluator must also ensure the security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

Explicit statement of evaluator's independence from any organizations that have been involved in designing, executing, or advising any aspect of the intervention that is the subject of the evaluation.

• Evaluators will recuse themselves from evaluating: (i) any project, program, or activity that they worked on or had line responsibility for the work on, including preparation, appraisal, administration, and completion reporting, or that they had a personal influence or financial stake in, in a previous capacity; or (ii) an entity that they had a significant decision making, financial management or approval responsibility for or personal influence or financial stake in, or in which their future employment is a significant possibility.

• Evaluators will similarly recuse themselves when there is such involvement in a project, program, activity, or entity on the part of immediate family members. They should inform the CO management of any such potential conflict of interest, or potential perception of conflict of interest, before evaluator assignments are finalized.

• If a former staff member or consultant is being considered for a consulting assignment in an CO evaluation, particular care will be exercised by the concerned professional staff to ensure that the concerned person was not involved, directly or indirectly, in the subject of the evaluation during his/her past term as staff or consultant of the CO.

12. SCOPE OF PRICE AND SCHEDULE OF PAYMENTS

The total professional fee shall be converted into a fixed output-based contract payablein three instalments of 20%, 40% and 40% respectively regardless of extension of the herein specified duration.

Criteria for issuing the final payment of 40%.

- The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance and responsive to all quality criteria listed in the UNDP evaluation quality checklist.
- The final TE report is clearly written, logically organized, and is specific for this project (i.e., the text has not been cut and pasted from other TE reports).
- The Audit Trail includes responses to and justification for each comment listed.

13. CRITERIA FOR SELECTION OF THE BEST OFFER

Ranking of CV received from the GPN/ExpRes Roster.

14. ANNEXES TO THE TE TERMS OF REFERENCE

• ToR Annex A: Project Logical/Results Framework.

https://docs.google.com/document/d/1oohZaWSXOsxS2SquaDuc1pVQWQlxqD_U/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR Annex B: Project Information Package to be reviewed by TE team.

https://docs.google.com/document/d/18JqXMYB7vorZf5xppYiox_0WKKU3_mAI/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR plan C: Content of the TE report

https://docs.google.com/document/d/1U_u5Mc5UbkUQa0-rgbSr4DVXE15VANME/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR Annex D: Evaluation Criteria Matrix template

• ToR Annex E: UNEG Code of Conduct for Evaluators

https://docs.google.com/document/d/16zElLCHjjOenIWl5OEJ9JaO9BqNibA1M/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR Annex F: TE Rating Scales

https://docs.google.com/document/d/1iVNYOmI293SzsT-hfJbOGttUVnLMxD6a/edit?usp=sharing&ouid=101183427218989265382&rtpof=true&sd=true.https://docs.google.com/document/d/1l7qqxG-PjfCRIL7jky_O_jZpxkBop9hp/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR Annex G: TE Report Clearance Form

https://docs.google.com/document/d/1TR9Vl3ggK1z9wRWDINaeYY9wvkEeFqYb/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• ToR Annex H: TE Audit Trail

https://docs.google.com/document/d/1bicoAJy0NaZlJGA-9ykxMMlh5uc4DoM3/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• Annex I: in a separate file: Relevant TE tracking tools (list)

https://docs.google.com/spreadsheets/d/13lOgfGmx4ysbDNkefEmyk3RjQlM6quaw/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• Annex J: in a separate file: GEF Co-financing template (categorizing co-financing amounts by source as 'investment mobilized' or 'recurrent expenditure')
https://docs.google.com/spreadsheets/d/1rnt_Ih-g8wGwTZwF01Vjh5vk4ROXwkBf/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

• Annex K: of TE Guidance _Checklist for reviewing draft TEs

https://docs.google.com/document/d/1WIaFwR2t51rS8nlwPocIZEPnV9TQaiOt/edit?usp=drive_link&ouid=101183427218989265382&rtpof=true&sd=true

5.2 Detailed Timeline

Day	Date	Time (Hrs)	Location	Activity	Remarks	Responsibility (logistics)
Sunday	1 September	10:00-1200	Mogadishu	In briefing with IWRM Project team	UNDP Security	Mohamed
Sunday	1 September	14:00-15:00	Mogadishu	Security briefing and ID	UNDP conference room	Mohamed
Monday	2 September	10:00-11:00	Mogadishu	Introduction meeting – Terminal Evaluation Consultants & UNDP Team	UNDP conference room	Salah
Tuesday-Thursday	3-5 September	9:00-17:00	Home-based	Drafting of Inception Report including interview templates (questionnaires)	Home-based/virtual	Consultants
Thursday	5 September	0930-1135	Mogadishu	Flight from Mogadishu to Garowe	Commercial Flight	Mo Sharif / Salah
Thursday	5 September	1135-1200	Garowe	Transport from airport to UNDP office	UNDP transport	Zaitun/Mo Sharif
Thursday	5 September	1230-1300	Garowe	In briefing with Head of Area Office, Muse	Musa's office	Ziatun/Mo Sharif
Thursday	5 September	1430-1530	Garowe	Meeting with RCC team members	RCC office	RCC team-Garowe
Saturday	7 September	09:00-11:00	Garowe	Meeting with Puntland Water Development Agency (PWDA) Project consultants	Ministry's office	Salah/Garowe team
Saturday	7 September	11:15-12:30	Mogadishu	Meetings with Ministry of Water and Energy Resources (MoWER – FGS) Project Consultants	UNDP conference room/virtual	Salah to organize
Saturday	7 September	13:30-14:45	Mogadishu	Virtual meetings with Ministry of Water and Energy Resources (MoWER - Hirshabelle) Project Consultants Project beneficiaries	UNDP Conference Room/virtual	Mo Sharif
Saturday	7 September	15:00-16:15	Mogadishu	Virtual meetings with Ministry of Environment and Climate Change (MOECC - Hirshabelle)	UNDP Conference Room/virtual	Salah

				Project Consultants Project beneficiaries		
Sunday	8 September	09:00-12:00	Garowe	Meeting with Ministry of Environment and Climate Change (MOECC - Garowe) Project consultants	Ministry's office	Salah
Sunday	8 September	13:30-16:30	Garowe	Meeting with relevant beneficiaries	Ministry's office	Salah
Monday	9 September	09:30-16:30	Garowe	Field visit to project sites	Project sites	Salah
Tuesday	10 September	09:00-14:00	Garowe	Wrapping up from Garowe and Debriefing with Head of area office and RCC Team	UNDP Conference Room	Salah
Wednesday	11 September	9:00-13-30	Garowe	Flight from Garowe to Hargeisa	UNHAS	Mo Sharif
Wednesday	11 September	1130-1200	Hargeisa	Transport from airport to UNDP office	UNDP transport	Rahma/Mo Sharif
Wednesday	11 September	1230-1300	Hargeisa	In briefing with Head of Area Office, Samira	Samira's office	Abdi Yusuf/Salah
Wednesday	11 September	1430-1530	Hargeisa	Meeting with RCC team members	RCC office	RCC team-Hargeisa
Thursday	12 September	09:00-12:00	Hargeisa	Meetings with Ministry of Water Resources (MoWR) – Somaliland) Project Consultants Project beneficiaries	Ministry's office	Salah
Saturday	14 September	13:30-16:30	Hargeisa	Meetings with Ministry of Environment and Climate Change (MOECC – Somaliland) Project Consultants Project beneficiaries	Ministry's office	Salah
Sunday	15 September	09:00-16:30	Hargeisa	Field visit to project sites	Project sites	Salah
Monday	16 September	0930-1135	Hargeisa	Flight from Hargeisa to Mogadishu	Commercial flight	Mo Sharif / Salah
Tuesday	17 September	0930-1135	Mogadishu	Flight from Mogadishu to Baidoa	UNHAS Flight	Mo Sharif

Wednesday	18 September	13:00-1630	Baidoa	Meetings with Ministry of Water and Energy Resources (MoEWR – SWS) Project Consultants Project beneficiaries	Ministry's office	Salah
Thursday	19 September	09:00-12:00	Baidoa	Meeting with Ministry of Environment and Climate Change (MOECC SWS) Project Consultants Project beneficiaries	Ministry's office	Salah
Thursday	19 September	13:30-16:30	Baidoa	Meeting with relevant beneficiaries	Ministry's office	Salah
Saturday	21 September	09:00-12:00	Baidoa	Travel from Baidoa to Mogadishu	UNHAS flight	Mo Sharif
Sunday	22 September	0930-1135	Mogadishu	Flight from Mogadishu to Dhusamareeb	Commercial flight	Mo Sharif
Monday	23 September	13:30-16:30	Dhusamareeb	Meetings with Ministry of Water and Energy Resources (MoWER – Galmudug) Project Consultants Project beneficiaries	Ministry's office	Salah
Monday	23 September	09:00-12:00	Dhusamareeb	Meeting with Ministry of Environment and Climate Change (MOECC Galmudug) Project Consultants Project beneficiaries	Ministry's office	Salah
Tuesday	24 September	13:00-1630	Dhusamareeb	Field visit to project sites	Project sites	Salah
Wednesday	25 September	10:00-11:30	Dhusamareeb	Travel from Dhusamareeb to Mogadishu	Commercial flight	Mo Sharif
Thursday	26 September	09:00-10:30	Mogadishu	Meeting with Head of POQA and RCC Staff (Salah Dahir, Hassan Abdirizak, Salah Mohamud, Nabil Youssuf)	UNDP Conference Room	Salah
Saturday	29 September	10:00-11:30	Mogadishu	Virtual interview with UNDP Senior Management (RR & DRR-P)	UNDP Conference room	Salah
Sunday	29 September	12:00-13.30	Mogadishu	Virtual interview with IWRM Donor	UNDP Conference Room	Salah
Monday	30 September	10:00-12:30	Mogadishu	Presentation of initial findings to Commissioning Unit and project management (UNDP)	UNDP Conference room in Mogadishu	Salah

Thursday	10 October	10:00-12:30	Home-based	Submission of full draft report with annexes, to Commissioning Unit; reviewed by RTA, Project Coordinating Unit, GEF OFP	Remote	Consultants
	10 October – 17 October			***Review of draft final report by clients who will provide written comments and suggestions to the consultants in view of preparing the final version of the TE report***		***Government, Donor, UNDP***
Thursday	24 October	10:00-12:30	Home-based	Submission of revised final report and TE Audit Trail (to Commissioning Unit)	Remote	Consultants

5.3 List of interviews

Type of data collection	Location/Place	Date of interviews	No of respondents	Stakeholders
Key informant Interview (KII)	Puntland	7th September	12 (2 female & 10 female)	MoEACC, MoWRD, PWDA and local community leaders including marginalized people
	Somaliland	10-11th September	9 (1 female & 6 male)	MoECC, MoWRD, local community leaders, local implementing partner (PENHA)
	Jubbaland	1st October	2 (1 female and 1 male)	Member State government representatives and local community leaders
	Southwest	19th September	4 (1 female & 3 male)	MoECC in SWS and local community leaders including people PWD
	Hirshabelle	26th September	1 (male)	Ministry of water representative
	Galmudug	25th September	2 (male)	State government representative and local community leaders
	Federal Government	12-5th October	8 (1 female & 7 male)	Federal ministries (MoECC, MoWRD)
	UNDP	20th October	1 (male)	Monitoring and evaluation specialist, UNDP Somalia
Focus group discussion (FGD)	Puntland	8th September	25 (16 female & 9 male)	Local community members including PWD, other marginalized people
	Somaliland	12-15th September	34 (16 female & 18 male)	Local community members including PWD, other marginalized people
	UNDP resilience team	7th September	11 (2 female & 9 male)	Local community members including PWD, other marginalized people
	Southwest	21st September	15 (8 female & 7 male)	Local community members including PWD, other marginalized people
	Salah Dahir, Hassan Abdirizak Ahmed, Eng. Sahib	20th October	3 (3 male)	UNDP project staff

5.4 Evaluation Matrix

The following evaluation matrix outlines evaluation criteria, main evaluations questions, data sources/methods, indicators, data analysis methods etc.

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
Relevance and Coherence	• Is the project relevant to the GEF Focal Area objectives? • Is the project relevant for the GEF biodiversity focal area and other relevant focal areas? • Is the project relevant to Somalia's environment and sustainable development objectives? • Is the project addressing the needs of target beneficiaries at the local and regional levels? • Is the project internally coherent in its design? • How is the project relevant with respect to other donor-supported activities? • Does the project provide relevant lessons and experiences for other similar projects in the future?	● Review of project documents including National policies and strategies ● Key informant interviews ● Focus group discussions	- Degree of alignment with national priorities mentioned in UNDP CPD - Existence of a clear relationship between project objectives and GEF priorities? - Degree to which the project supports national environmental objectives - Degree of coherence between the project and national priorities - Appreciation from national stakeholders with respect to adequacy of project - Level of involvement of government and other partners in the design and implementation - Coherence between needs expressed by national stakeholders and UNDP-GEF criteria - Strength of the link between project results and	Qualitative data analysis methods i.e. - Triangulation - Validations - Interpretations - Abstractions

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	• Is the GEF IWRM project's theory of change clearly articulated? • How did the GEF IWRM project contribute to, and advance, gender equality aspirations of the Government of Somalia; and/or concerned population groups? • How well did the GEF IWRM project adapt to any changes in the contextual work environment and how well has the design been able to adjust to changing external circumstances?		the needs of relevant stakeholders - Level of coherence between project expected results and project design and implementation - Degree to which program was coherent and complementary to nationally and regionally	
Effectiveness	• Has the project been effective in achieving the expected outcomes and objectives? • How effective was the risk and risk mitigation management? • What lessons can be drawn regarding general effectiveness for other	● Review of project documents including National policies and strategies ● Key informant interviews ● Focus group discussions	- Progress towards output indicators and targets of project results framework - Number and kind of beneficiaries involved or benefited -Completeness of risk identification and assumptions during project planning and design	Qualitative data analysis methods i.e. - Triangulation - Validations - Interpretations - Abstractions Quantitative methods - Progress and trend analysis of project planned and achieved targets

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	similar projects in the future?		-Quality of existing information systems in place to identify emerging risks and other issues -Quality of risk mitigations strategies developed and followed	
Efficiency	• Was adaptive management used or needed to ensure efficient resource use? • Were the project's logical framework and work plans (and any changes brought to them) used as management tools during implementation? • Were the existing accounting and financial systems adequate for project management and producing accurate and timely financial information? • Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?	● Review of project documents (financial statements) ● Key informant interviews ● Focus group discussions	- Availability and quality of financial and progress reports and its timeliness - Level of discrepancy between planned and utilized financial expenditures - Planned vs. actual funds leveraged - Cost in view of results achieved compared to costs of similar projects from other organizations - Quality of results-based management, monitoring and evaluation and reporting) - Occurrence of change in project design/ implementation approach - Specific activities conducted to support the development of cooperative	Qualitative data analysis methods i.e. - Triangulation - Validations Quantitative methods - Progress and trend analysis of project allocations and expenditures

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	• Was project implementation as cost effective as originally proposed (planned vs. actual) • Did the leveraging of funds (co-financing) happen as planned? • Were financial resources utilized efficiently; and could financial resources have been used more efficiently (if so, how)? • How was results-based management used during project implementation? • To what extent partnerships/linkages between institutions/ organizations were encouraged and supported? • Which partnerships/linkages were facilitated? • What was the level of efficiency of cooperation and collaboration arrangements?		arrangements between partners. - Proportion of expertise utilized from international experts compared to national experts	

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	• Which methods were successful or not and why? • Did the project efficiently utilize local capacity in implementation? • What lessons can be drawn regarding efficiency for other similar projects in the future? • To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs? • To what extent was the project effective in coordinating its activities with relevant development partners, donors, CSO, NGOs and academic institution? • How extensively has the project involved individuals with disabilities?			
Sustainability	• Were sustainability issues integrated into the design	● Review of project documents including secondary sources	- The likely ability of an intervention to continue to deliver benefits for an	Qualitative data analysis methods i.e. - Triangulation

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	and implementation of the project? • Did the project adequately address financial and economic sustainability issues? • Are the recurrent costs after project completion sustainable? • What are the main institutions/organizations in country that will take the project efforts forward after project end and what is the budget they have assigned to this? • Were the results of efforts made during the project implementation period well assimilated by organizations and their internal systems and procedures? • Is there evidence that project partners will continue their activities beyond project support? • What degree is there of local ownership of initiatives and results? • Were laws, policies and frameworks addressed through the project, in order	● Key informant interviews ● Focus group discussions	extended period of time after completion. - Financial, Social, Institutional and Environmental risks to sustainability of benefits - level of ownership of project interventions and availability of mechanisms to carry forward the results attained - Availability or plans of an exit strategy to ensure sustainability	- Validations - Interpretations - Abstractions

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	to address sustainability of key initiatives and reforms? • What is the level of political commitment to build on the results of the project? • Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits? • Are there adequate incentives to ensure sustained benefits achieved through the project? • Are there risks to the environmental benefits that were created or that are expected to occur? • Are there any long-term environmental threats that have not been addressed by the project? • Have any new environmental threats emerged in the project's lifetime? • Is the capacity in place at the regional, national and local levels adequate to ensure sustainability of the results achieved to date?			

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	• Is there potential to scale up or replicate project activities? • Did the project's Exit Strategy actively promote replication? • Which areas/arrangements under the project show the strongest potential for lasting long-term results? • What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?			
Impact	• Which areas/arrangements under the project show the strongest potential for lasting positive impact? • What are the key challenges and obstacles to achieving intended impact?	● Review of project documents including secondary sources ● Key informant interviews ● Focus group discussions	- Type and kind of long term positive and negative, foreseen and unforeseen changes produced by project interventions - Level of contribution to gender equality and needs of the disadvantaged groups.	Qualitative data analysis methods i.e. - Triangulation - Validations - Interpretations - Abstractions
Cross cutting issues	• **Gender equality and women's empowerment** ○ What factors contributed or influenced the	● Review of project documents including secondary sources ● Key informant interviews ● Focus group discussions	- No and ratio of women involved and benefited from project - Availability of gender sensitive indicators in the RF Interventions	Qualitative data analysis methods i.e. - Triangulation - Validations - Interpretations - Abstractions Quantitative methods

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support? • **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design,		-No of people from disadvantaged groups involved and benefited	- Progress and trend analysis

Evaluation Criteria	Key Evaluation Questions	Data Sources/ Methods	Indicators	Methods for Data Analysis
	implementation and monitoring of project interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support?			

5.5 Work Plan and Key Deliverables

Overall the proposed evaluation exercise consumed 35 working days (non-consecutive, from 10th August to 30th October 2024). Following are the tentative Work Plan and key deliverables of the evaluation exercise.

Activity/Deliverable	Working Days	Tentative Timeline/ Deliverable date	Responsibilities
1. Initial meetings, Documents Review and Preparation of TE Inception Report (Deliverable 1)	5	-5 September 2024	Lead Consultant, NC, Project Team
2. Data collection: Key informant interviews and focus groups discussions with stakeholders (both in-person during field mission and virtually) (cf. detailed mission plan provided in Annex I)	15	6 – 29 September 2024	National Consultant CO and Project Team M&E member
3. Presentation of Preliminary Findings (Deliverable 2)	2	10 October 2024	Lead Consultant
4. Data analysis and Preparation of Draft Terminal Evaluation Report (Deliverable 3)	10	20 October 2024	Lead Consultant National Consultant
5. Comments on the Draft Report			UNDP and stakeholders
6. Final Evaluation Report duly incorporating comments and suggestions and TE Audit Trail (Deliverable 4)	3	29 October 2024	Lead Consultant National Consultant
Total	35 days		

5.6 Interview Guidelines / Questionnaire Templates for semi-structured Interviews

A – Overview of Evaluation Questions by Interviewee/Stakeholder Category

Evaluation Criteria	Key Evaluation Questions	Institutional Stakeholders & Technical Partner Entities (central/regional governments incl. technical/ institutional beneficiaries; donor; UNDP etc.)	End-level beneficiaries among targeted agro-pastoral population/ communities	LNOB (Gender/PwD/ youth/ disadvantaged or otherwise marginalized communities)
Relevance and Coherence	• Has the project been relevant to the GEF Focal Area objectives?	X		
	• Has the project been relevant for the GEF biodiversity focal area and other relevant focal areas?	X		
	• Has the project been relevant to Somalia's environment and sustainable development objectives?	X		
	• Did the project address the needs of target beneficiaries at the local and regional levels?		X	X
	• Is the project internally coherent in its design?	X	(X)	(X)
	• How has the project been relevant with respect to other donor-supported activities?	X	(X)	(X)
	• Does the project provide relevant lessons and experiences for other similar projects in the future?	X		
	• Is the GEF IWRM project's theory of change clearly articulated?	X (but mainly relying on desk review)		
	• How did the GEF IWRM project contribute to, and advance, gender equality aspirations of the Government of Somalia; and/or concerned population groups?	X		X
	• How well did the GEF IWRM project adapt to any changes in the contextual work environment and how well has the design been able to adjust to changing external circumstances?	X	X	
Effectiveness	• Has the project been effective in achieving the expected outcomes and objectives?	X		
	• How effective was the risk and risk mitigation management?	X	X	X
	• What lessons can be drawn regarding general effectiveness for other similar projects in the future?	X	X	X
Efficiency	• Was adaptive management used or needed to ensure efficient resource use?	X		

	• Were the project's logical framework and work plans (and any changes brought to them) used as management tools during implementation?	X		
	• Were the existing accounting and financial systems adequate for project management and producing accurate and timely financial information?	X		
	• Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?	X		
	• Was project implementation as cost effective as originally proposed (planned vs. actual) ?	X		
	• Did the leveraging of funds (co-financing) happen as planned?	X		
	• Were financial resources utilized efficiently; and could financial resources have been used more efficiently (if so, how)?	X		
	• How was results-based management used during project implementation?	X		
	• To what extent partnerships/linkages between institutions/ organizations were encouraged and supported?	X		
	• Which partnerships/linkages were facilitated?	X	X	X
	• What was the level of efficiency of cooperation and collaboration arrangements; and which methods were successful or not, and why?	X	X	X
	• To what extent was the project effective in coordinating its activities with relevant development partners, donors, CSO, NGOs and academic institution?	X		
	• Did the project efficiently utilize local capacity in implementation?	X	X	X
	• What lessons can be drawn regarding efficiency for other similar projects in the future?	X		
	• To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs?	X	X	X
	• How extensively has the project involved individuals with disabilities?	X	X	X
Sustainability	• Were sustainability issues integrated into the design and implementation of the project?	X		
	• Did the project adequately address financial and economic sustainability issues?	X		
	• Are the recurrent costs after project completion sustainable?	X		
	• What are the main institutions/organizations in the country that will take the project efforts forward after project end and what is the budget they have assigned to this?	X		
	• Were the results of efforts made during the project implementation period well assimilated by organizations and their internal systems and procedures?	X		
	• Is there evidence that project partners will continue their activities beyond project support?	X		

	• What degree of local ownership of initiatives and results is there?	X	X	X
	• Were laws, policies and frameworks addressed through the project, in order to address sustainability of key initiatives and reforms?	X		
	• What is the level of political commitment to build on the results of the project?	X	(X)	
	• Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits?	X	X	X
	• Are there adequate incentives to ensure sustained benefits achieved through the project?	X	X	X
	• Are there risks to the environmental benefits that were created or that are expected to occur?	X	X	(X)
	• Are there any long-term environmental threats that have not been addressed by the project?	X	X	(X)
	• Have any new environmental threats emerged in the project's lifetime?	X	X	(X)
	• Is the capacity in place at the regional, national and local levels adequate to ensure sustainability of the results achieved to date?	X		
	• Is there potential to scale up or replicate project activities?	X	X	X
	• Did the project's Exit Strategy actively promote replication?	X		
	• Which areas/arrangements under the project show the strongest potential for lasting long-term results?	X		
	• What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?	X	(X)	(X)
Impact	• Which areas/arrangements under the project show the strongest potential for lasting positive impact?	X	(X)	(X)
	• What are the key challenges and obstacles to achieving intended impact?	X	X	X
Cross-cutting issues	• **Gender equality and women's empowerment** o What factors contributed or influenced the GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support?	X	X	X
	● **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design, implementation and monitoring of project	X	X	X

	interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support?			

B – Template for Interviewee Category of institutional/technical Stakeholders

Evaluation Criteria	**Key Evaluation Questions**	**Answer/Comments** *(including case studies and other narrative/qualitative elements; reference to pictures/maps etc. where applicable)*
Relevance and Coherence	• Has the project been relevant to the GEF Focal Area objectives?	
	• Has the project been relevant for the GEF biodiversity focal area and other relevant focal areas?	
	• Has the project been relevant to Somalia's environment and sustainable development objectives?	
	• Was the project internally coherent in its design?	
	• How has the project been relevant with respect to other donor-supported activities?	
	• Does the project provide relevant lessons and experiences for other similar projects in the future?	
	• Is the GEF IWRM project's theory of change clearly articulated?	
	• How did the GEF IWRM project contribute to, and advance, gender equality aspirations of the Government of Somalia; and/or concerned population groups?	
	• How well did the GEF IWRM project adapt to any changes in the contextual work environment and how well has the design been able to adjust to changing external circumstances?	
Effectiveness	• Has the project been effective in achieving the expected outcomes and objectives?	
	• How effective was the risk and risk mitigation management?	
	• What lessons can be drawn regarding general effectiveness for other similar projects in the future?	
Efficiency	• Was adaptive management used or needed to ensure efficient resource use?	
	• Were the project's logical framework and work plans (and any changes brought to them) used as management tools during implementation?	
	• Were the existing accounting and financial systems adequate for project management and producing accurate and timely financial information?	
	• Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?	
	• Was project implementation as cost effective as originally proposed (planned vs. actual) ?	
	• Did the leveraging of funds (co-financing) happen as planned?	
	• Were financial resources utilized efficiently; and could financial resources have been used more efficiently (if so, how)?	
	• How was results-based management used during project implementation?	
	• To what extent partnerships/linkages between institutions/ organizations were encouraged and supported?	
	• Which partnerships/linkages were facilitated?	

	• What was the level of efficiency of cooperation and collaboration arrangements; and which methods were successful or not, and why?	
	• To what extent was the project effective in coordinating its activities with relevant development partners, donors, CSO, NGOs and academic institution?	
	• Did the project efficiently utilize local capacity in implementation?	
	• What lessons can be drawn regarding efficiency for other similar projects in the future?	
	• To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs?	
	• How extensively has the project involved individuals with disabilities?	
Sustainability	• Were sustainability issues integrated into the design and implementation of the project?	
	• Did the project adequately address financial and economic sustainability issues?	
	• Are the recurrent costs after project completion sustainable?	
	• What are the main institutions/organizations in the country that will take the project efforts forward after project end and what is the budget they have assigned to this?	
	• Were the results of efforts made during the project implementation period well assimilated by organizations and their internal systems and procedures?	
	• Is there evidence that project partners will continue their activities beyond project support?	
	• What degree of local ownership of initiatives and results is there?	
	• Were laws, policies and frameworks addressed through the project, in order to address sustainability of key initiatives and reforms?	
	• What is the level of political commitment to build on the results of the project?	
	• Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits?	
	• Are there adequate incentives to ensure sustained benefits achieved through the project?	
	• Are there risks to the environmental benefits that were created or that are expected to occur?	
	• Are there any long-term environmental threats that have not been addressed by the project?	
	• Have any new environmental threats emerged in the project's lifetime?	
	• Is the capacity in place at the regional, national and local levels adequate to ensure sustainability of the results achieved to date?	
	• Is there potential to scale up or replicate project activities?	
	• Did the project's Exit Strategy actively promote replication?	
	• Which areas/arrangements under the project show the strongest potential for lasting long-term results?	
	• What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?	
Impact	• Which areas/arrangements under the project show the strongest potential for lasting positive impact?	

	• What are the key challenges and obstacles to achieving intended impact?	
Cross-cutting issues	• **Gender equality and women's empowerment** o What factors contributed or influenced the GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support?	
	• **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design, implementation and monitoring of project interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support?	

C – Template for Interviewee Category of End-level Beneficiaries (Agro-pastoral Population/Communities)

Other than interviews with institutional and technical stakeholders, the interviews with grassroots beneficiaries within the communities living next to, close-by or around the project sites will be held in Somali language. Therefore, the interview questions for template sections C and D are also shown in their translated Somali version. While field level notes of interviews and discussions with native Somali speakers will be captured in Somali, data analysis and final reporting will be done in English. The draft questions in Somali shown here were prepared using "Google Translator". They are meant as a means of reference for the national consultant who will adapt and correct them during interviews, when and where necessary.

Evaluation Criteria	**Key Evaluation Questions**	**Answers and Comments** *(including case studies and other narrative/qualitative elements; reference to pictures/maps etc. where applicable)*
Relevance and Coherence	• Did the project address the needs of target beneficiaries at the local and regional levels? Mashruucu ma wax ka qabtay baahiyaha ka faa'iideystayaasha la beegsanayo ee heer degmo iyo heer gobol?	
	(Was the project internally coherent in its design?) *(Mashruucu ma gudaha nashqaddiisa ayuu isku xidhnaa?)*	
	(How has the project been relevant with respect to other donor-supported activities?) *(Sidee mashruucu u khuseeyey hawlaha kale ee ay deeq-bixiyayaashu taageeraan?)*	
	• How well did the GEF IWRM project adapt to any changes in the contextual work environment and how well has the design been able to adjust to changing external circumstances? Intee in le'eg ayuu mashruuca GEF IWRM ula qabsaday isbeddel kasta oo ku yimaadda jawiga shaqada ee macnaha guud iyo sida wanaagsan ee nashqadahu u awooday in ay ula qabsato isbeddelka xaaladaha dibadda?	

Effectiveness	• How effective was the risk and risk mitigation management? Sidee bay waxtar u ahayd khatarta iyo maaraynta yaraynta khatarta?	
	• What lessons can be drawn regarding general effectiveness for other similar projects in the future? Maxaa casharo ah oo laga qaadan karaa waxtarka guud ee mashaariicda kale ee la midka ah mustaqbalka?	
Efficiency	• Which partnerships/linkages were facilitated? Waa kuwee shuraakooyinka/isku xidhka la fududeeyey?	
	• What was the level of efficiency of cooperation and collaboration arrangements; and which methods were successful or not, and why? Waa maxay heerka hufnaanta iskaashiga iyo qabanqaabada iskaashiga; iyo hababka lagu guuleystay ama aan ahayn, iyo sababta? Mashruucu miyuu si hufan uga faa'iidaysanay awooda maxaliga ah ee fulinta?	
	• Did the project efficiently utilize local capacity in implementation? Mashruucu miyuu si hufan uga faa'iidaysanay awooda maxaliga ah ee fulinta?	
	• To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs? Ilaa intee in le'eg ayuu mashruucu qaatay hab isku dubaridan oo ka qaybqaadasho ah oo lagu dhex gelinayo jinsiga siyaasadaha iyo barnaamijyada?	
	• How extensively has the project involved individuals with disabilities? Intee in le'eg ayuu mashruuca ka qayb qaatay shakhsiyaadka naafada ah?	
Sustainability	• What degree of local ownership of initiatives and results is there? Waa maxay heerka lahaanshaha deegaanka ee waxqabadyada iyo natiijooyinka ayaa jira?	
	(What is the level of political commitment to build on the results of the project?) (Waa intee heerka ballanqaadka siyaasadeed ee lagu dhisayo natiijada mashruuca?)	

	• Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits? Ma jiraan siyaasado ama dhaqamo abuuraya dhiirigelino qalloocan oo si xun u saameeya faa'iidooyinka mustaqbalka fog?	
	• Are there adequate incentives to ensure sustained benefits achieved through the project? • Ma jiraan dhiirigelin ku filan si loo hubiyo faa'iidooyinka joogtada ah ee lagu gaaro mashruuca?	
	• Are there risks to the environmental benefits that were created or that are expected to occur? Ma jiraan khataro ku wajahan faa'iidooyinka deegaanka ee la abuuray ama la filayo inay dhacaan?	
	• Are there any long-term environmental threats that have not been addressed by the project? Ma jiraan khataro deegaan oo mustaqbalka fog ah oo aan mashruucu waxba ka qaban?	
	• Have any new environmental threats emerged in the project's lifetime? Ma jiraan wax khatar deegaan oo cusub oo soo baxay intii uu noolaa mashruuca?	
	• Is there potential to scale up or replicate project activities? Ma jirtaa suurtagal in kor loo qaado ama lagu celceliyo hawlaha mashruuca?	
	(What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?) *(Waa maxay caqabadaha muhiimka ah iyo caqabadaha hortaagan joogteynta natiijooyinka mashruucyada mashruuca oo ay tahay in si toos ah oo degdeg ah wax looga qabto?)*	
Impact	*(Which areas/arrangements under the project show the strongest potential for lasting positive impact?)* *(Waa kuwee aagag/ qabanqaabada hoos timaada mashruuca oo tusa awooda ugu xoogan ee saamayn togan oo waarta?)*	
	• What are the key challenges and obstacles to achieving intended impact? Waa maxay caqabadaha iyo caqabadaha ugu muhiimsan ee lagu gaari karo saameynta loogu talagalay?	
Cross-cutting issues	• **Gender equality and women's empowerment** o What factors contributed or influenced the GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support? • Sinnaanta jinsiga iyo xoojinta haweenka o Maxay yihiin qodobbada gacan ka geystay ama saameeyay awoodda mashruuca GEF IWRM ee si wax ku ool ah uga qaybqaato ama u saameeyo isbeddelka isbeddelka marka laga eego aragtida jinsiga iyo xoojinta	

	dhaqaalaha haweenka, heerarka siyaasadda, horumarinta tignoolajiyada / wareejinta iyo taageerada hab-nololeedyada?	
	• **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design, implementation and monitoring of project interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support? • Ka mid noqoshada naafada & xuquuqul insaanka o Ilaa xad intee le'eg ayay danaha naafada iyo aragtiyaha xuquuqul insaanka lagu daray qaabaynta, fulinta iyo la socodka faragelinta mashruuca ee heer(yada) qaabaynta siyaasada, wareejinta tignoolajiyada/hormarinta awooda iyo taageerada hab-nololeedyada?	

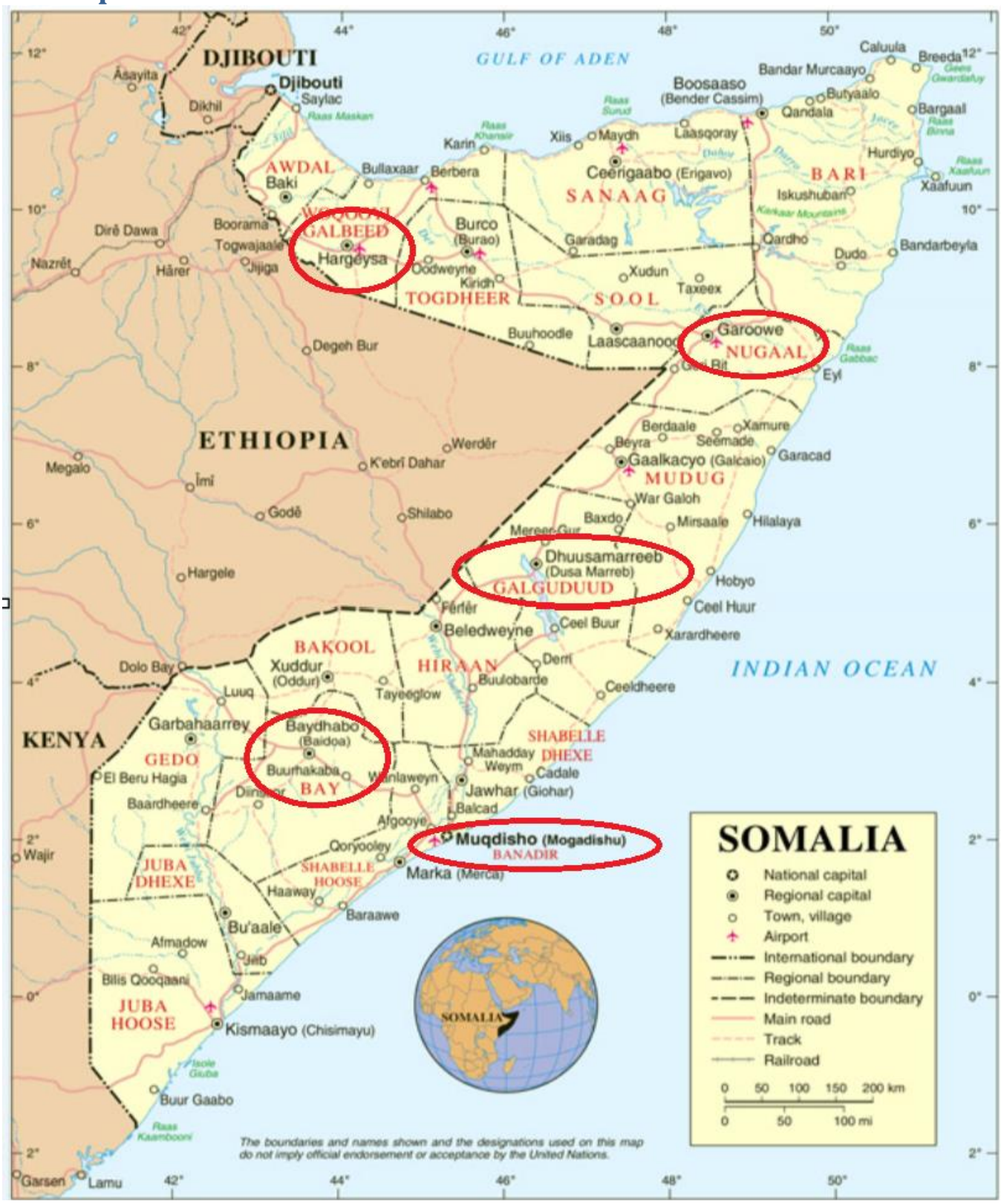
D – Template for Interviewee Category LNOB (Gender-PwD-Youth-Disadvantaged or otherwise marginalized Communities)

Evaluation Criteria	**Key Evaluation Questions**	**Answers and Comments** *(including case studies and other narrative/qualitative elements; reference to pictures/maps etc. where applicable)*
Relevance and Coherence	• Did the project address the needs of target beneficiaries at the local and regional levels? Mashruucu ma wax ka qabtay baahiyaha ka faa'iideystayaasha la beegsanayo ee heer degmo iyo heer gobol?	
	(• Has the project been internally coherent in its design?) *(Mashruucu ma ahaa mid gudaha isku xidhan oo qaabayntiisa ah?)*	
	(• How has the project been relevant with respect to other donor-supported activities?) *(Sidee buu mashruucu u khuseeyaa hawlaha kale ee ay deeq-bixiyayaashu taageeraan?)*	
	• How did the GEF IWRM project contribute to, and advance, gender equality aspirations of the Government of Somalia; and/or concerned population groups? Sidee ayuu mashruuca GEF IWRM uga qayb qaatay, una hormariyay rabitaanka sinnaanta jinsiga ee Dowladda Soomaaliya; iyo/ama ay khusayso kooxaha dadweynaha?	
Effectiveness	• How effective was the risk and risk mitigation management? Sidee bay waxtar u ahayd khatarta iyo maaraynta yaraynta khatarta?	
	• What lessons can be drawn regarding general effectiveness for other similar projects in the future? Maxaa casharo ah oo laga qaadan karaa waxtarka guud ee mashaariicda kale ee la midka ah mustaqbalka?	
Efficiency	• Which partnerships/linkages were facilitated? Waa kuwee shuraakooyinka/isku xidhka la fududeeyey?	

	• What was the level of efficiency of cooperation and collaboration arrangements; and which methods were successful or not, and why? Waa maxay heerka hufnaanta iskaashiga iyo qabanqaabada iskaashiga; iyo hababka lagu guuleystay ama aan ahayn, iyo sababta?	
	• Did the project efficiently utilize local capacity in implementation? Mashruucu miyuu si hufan uga faa'iidaysanay awooda maxaliga ah ee fulinta?	
	• To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs? Ilaa intee in le'eg ayuu mashruucu qaatay hab isku dubaridan oo ka qaybqaadasho ah oo lagu dhex gelinayo jinsiga siyaasadaha iyo barnaamijyada?	
	• How extensively has the project involved individuals with disabilities? Intee in le'eg ayuu mashruuca ka qayb qaatay shakhsiyaadka naafada ah?	
Sustainability	• What degree of local ownership of initiatives and results is there? Waa maxay heerka lahaanshaha deegaanka ee waxqabadyada iyo natiijooyinka ayaa jira?	
	• Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits? Ma jiraan siyaasado ama dhaqamo abuuraya dhiirigelino qalloocan oo si xun u saameeya faa'iidooyinka mustaqbalka fog?	
	• Are there adequate incentives to ensure sustained benefits achieved through the project? Ma jiraan dhiirigelin ku filan si loo hubiyo faa'iidooyinka joogtada ah ee lagu gaaro mashruuca?	
	(• Are there risks to the environmental benefits that were created or that are expected to occur?) *(• Ma jiraan khataro ku wajahan faa'iidooyinka deegaanka ee la abuuray ama la filayo inay dhacaan?)*	
	(• Are there any long-term environmental threats that have not been addressed by the project?) *(• Ma jiraan khataro deegaan oo mustaqbalka fog ah oo aan mashruucu wax ka qaban?)*	
	(• Have any new environmental threats emerged in the project's lifetime?) *(• Miyay jiraan khataro deegaan oo cusub oo soo baxay noloshii mashruuca?)*	
	• Is there potential to scale up or replicate project activities? Ma jirtaa suurtagal in kor loo qaado ama lagu celceliyo hawlaha mashruuca?	

	(• What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?) *(• Waa maxay caqabadaha iyo caqabadaha muhiimka ah ee hortaagan joogteynta natiijooyinka hindisayaasha mashruuca oo ay tahay in si toos ah oo degdeg ah wax looga qabto?)*	
Impact	*(• Which areas/arrangements under the project show the strongest potential for lasting positive impact?)* *(• Waa kuwee aagag/ qabanqaabada hoos timaada mashruuca oo tusinaysa awoodda ugu xooggan ee saamayn togan oo waarta?)*	
	• What are the key challenges and obstacles to achieving intended impact? Waa maxay caqabadaha iyo caqabadaha ugu muhiimsan ee lagu gaari karo saameynta loogu talagalay?	
Cross-cutting issues	• **Gender equality and women's empowerment** o What factors contributed or influenced the GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support? **• Sinnaanta jinsiga iyo xoojinta haweenka** o Maxay yihiin qodobbada gacan ka geystay ama saameeyay awoodda mashruuca GEF IWRM ee si wax ku ool ah uga qaybqaato ama u saameeyo isbeddelka isbeddelka marka laga eego aragtida jinsiga iyo xoojinta dhaqaalaha haweenka, heerarka siyaasadda, horumarinta tignoolajiyada / wareejinta iyo taageerada hab-nololeedyada?	
	● **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design, implementation and monitoring of project interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support? ● Ka mid noqoshada naafada & xuquuqul insaanka o Ilaa xad intee le'eg ayay danaha naafada iyo aragtiyaha xuquuqul insaanka lagu daray qaabaynta, fulinta iyo la socodka faragelinta mashruuca ee heer(yada) qaabaynta siyaasada, wareejinta tignoolajiyada/hormarinta awooda iyo taageerada hab-nololeedyada?	

5.7 Map of Data Collection Sites



(http://www.vidiani.com/political-map-of-somalia/)

5.8 Methodological Coverage of Crott-cutting Issues

Cross-cutting issues were integral to the evaluation of the "Support for Integrated Water Resources Management (IWRM) to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists" project. These issues, which include gender equality, disability inclusion, human rights, and environmental sustainability, are fundamental to understanding the project's broader impact and ensuring that the benefits are equitably distributed across all segments of society. The evaluation systematically addressed these cross-cutting issues to provide a comprehensive assessment of how well the project has integrated these critical dimensions into its design, implementation, and outcomes.

Gender Equality and Women's Empowerment

Gender equality and women's empowerment were pivotal to the success of the IWRM project, particularly in a context like Somalia, where traditional gender roles can limit women's access to resources and decision-making processes. The evaluation focused on the following aspects:

- Gender-Responsive Design and Implementation: The evaluation assessed the extent to which the project was designed and implemented with a focus on addressing gender disparities. This included evaluating whether gender considerations were integrated into the project's objectives, activities, and monitoring frameworks.
- Participation and Decision-Making: The evaluation examined the level of women's participation in project activities, particularly in decision-making processes related to water resource management. It assessed how the project promoted women's involvement and leadership in these areas and the impact of such participation on community outcomes.
- Economic Empowerment: The evaluation explored how the project has contributed to the economic empowerment of women, particularly through livelihood diversification and access to water resources. It assessed the creation of opportunities for women in the agro-pastoralist communities, such as through training and capacity-building initiatives that enhance their economic independence.
- Impact on Gender Relations: The evaluation also considered the broader impact of the project on gender relations within the communities. This included analyzing any shifts in the status and roles of women and men as a result of the project's interventions, particularly in relation to water management and climate resilience.

Disability Inclusion

Ensuring the inclusion of individuals with disabilities in development projects is essential to promoting equitable and sustainable development. The evaluation addressed disability inclusion by:

- Inclusion in Project Activities: The evaluation assessed whether and how the project identified and included individuals with disabilities in its activities. This included evaluating the accessibility of project interventions and whether specific measures were taken to ensure that people with disabilities could participate and benefit from the project.
- Awareness and Sensitization: The evaluation explored efforts made by the project to raise awareness and sensitize stakeholders about the importance of disability inclusion. This included assessing training and capacity-building activities aimed at promoting an inclusive approach among project partners and beneficiaries.
- Impact on Beneficiaries with Disabilities: The evaluation considered the specific outcomes and benefits of the project for individuals with disabilities. This included examining any targeted interventions that addressed the unique challenges faced by this group, particularly in accessing water resources and adapting to climate-related risks.

Human Rights

The promotion and protection of human rights are core principles of the United Nations and are integral to the evaluation of this project. The evaluation covered human rights by:

- Rights-Based Approach: The evaluation assessed the extent to which the project adopted a rights-based approach in its design and implementation. This included evaluating how the project addressed issues of equity, participation, accountability, and non-discrimination, particularly in relation to marginalized and vulnerable groups.
- Access to Resources and Services: The evaluation examined whether the project has contributed to improving access to essential resources and services, such as water, for all members of the community, particularly those who are most vulnerable. It assessed whether the project's interventions were designed and implemented in a manner that respects and promotes the rights of these groups.
- Addressing Grievances and Ensuring Accountability: The evaluation explored the mechanisms put in place by the project to address grievances and ensure accountability. This included assessing how the project handled complaints, particularly those related to human rights violations, and the effectiveness of these mechanisms in resolving issues.

Environmental Sustainability

Given the project's focused on water resource management and climate resilience, environmental sustainability is a key cross-cutting issue. The evaluation covered environmental sustainability by:
- Sustainable Resource Management: The evaluation assessed the effectiveness of the project's strategies in promoting the sustainable management of water resources. This included evaluating the impact of the project on reducing environmental degradation, improving water quality, and ensuring the long-term availability of water resources for agro-pastoralist communities.
- Climate Change Adaptation: The evaluation examined how well the project has integrated climate change adaptation into its activities. This included assessing the effectiveness of the project's interventions in building the resilience of communities to climate-related risks, such as droughts and floods, and reducing their vulnerability to these risks.
- Environmental Safeguards: The evaluation reviewed the environmental safeguards that were put in place to mitigate any negative impacts of the project on the environment. This included assessing the project's compliance with these safeguards and the effectiveness of the measures taken to protect the environment.
- Long-Term Environmental Impact: The evaluation considered the long-term environmental impact of the project, including its contribution to broader environmental goals, such as the protection of ecosystems, biodiversity conservation, and the promotion of sustainable land and water use practices.

5.9 Progress against Objective-level & Outcome-level Indicators

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
Objective: Reinforced technical and operational capacities at federal, state and local levels to manage water resources sustainably to build the climate resilience of agro-pastoralists in Somalia	**Indicator 1a**: Number of RBMAs (River Basin Management Authorities) established	BASELINE 1a: There are no River Basin Management Authorities to support equitable and sustainable water provision for upstream and downstream users.	0 RBMAs established or revived	01 RBMA is created and/or revived for the Juba and Shebelle river basins (with 30% participation of women)		The UNDP GEF LDCF2 project played a vital role in supporting the establishment of River Basin Management Authorities (RBMAs) in Somalia. Despite challenges such as complex institutionalization, stringent regulations, and overlapping roles among federal institutions, the project provided the necessary technical and operational support. This included developing river basin plans and models, promoting transboundary cooperation, and restructuring institutional frameworks. Progress has been slow due to insufficient collaboration between the Federal Government of Somalia and neighboring countries. Ethiopia and Kenya. Hydro-climatic modeling for the Juba and Shabelle Basin has yielded	TARGET 1a: Two River Basin Management Authorities are created and/or revived for the Juba and Shebelle river basins (at least 30% women participation)		Satisfactory to highly satisfactory; whereas one KPI significantly exceeded its target, two others at least fully met if not exceeded their respective target. Meanwhile, the only indicator that did not meet its target was not particularly SMART (since beyond the project's actual remit and therefore out of reach and therefore, given the political climate, objectively and realistically not achievable by the project). **(MTE: Moderately Satisfactory)**

15 Rating Scale: HS, S, MS, MU, U, HU

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
						objective results, indicating significant climate change impacts on water resources. These findings are directly linked to the livelihoods of pastoral and agro-pastoral communities in Somalia, who depend on stable water sources for their sustenance. The data suggests that over the next 100 years, these communities may face challenges due to variations in streamflow, increased instances of floods, and shifts in land use patterns. Adapting to these changes is essential for maintaining the economic stability and survival of these communities. The modeling serves as a foundation for developing robust water management and disaster preparedness strategies, ensuring the resilience of pastoral and agro-pastoral societies against climatic induced shocks. In recent years, the Federal Ministry of Energy and Water			

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
						Resources, in collaboration with GIZ, has made progress in managing the Juba and Shabelle rivers. The strategic plan includes integrated interventions, project coordination, sustainable water management, flood protection, and cross-border collaboration with Ethiopia and Kenya. The establishment of River Basin Management Authorities is underway to ensure effective governance within the project's timeframe. A strategic action plan for the Shabelle River, developed with diverse stakeholders, aims to coordinate investments, align with the National Water Strategy, and provide a collaborative framework for sustainable water governance and management. Additionally, the UNDP GEF LDCF2 project in collaboration with the Federal Ministry of Energy and Water Resources has			

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
						formulated a 5-year action plan addressing water governance and climate change in the Horn and East Africa. The World Bank's Somalia Crisis Recovery Project is developing a plan for the Juba Basin, proposing the Shabelle River Basin Management Authority for equitable water distribution and transboundary governance. Furthermore, the LDCF-GEF project and IGAD conducted the Merti Aquifer Feasibility Study, exploring the integrated use of shared groundwater and surface water resources between Somalia and Kenya.			
	Indicator 1b: Number of coordination workshops at the national and regional level building capacities on IWRM	1b. There is also limited knowledge of IWRM at the national and state levels and no coordination of IWRM planning at the national level with the state levels.	At least 07 stakeholder coordination workshops conducted	2 Two (2) coordination workshops building IWRM capacities at the national and regional levels (at least 30% women participation)		The LDCF-GEF project has successfully engaged stakeholders at Federal and Member State levels, achieving 100% of its end-term target through 4 key coordination meetings focused on Integrated Water Resources Management (IWRM) and Water Governance. The milestones include: I)	TARGET 1b: Four (4) coordination workshops building IWRM capacities at the national and regional levels (at least 30% women participation)		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
						The Water Sector Coordination Facility was launched by the MOEWR in September 2022 to enhance sectoral collaboration; II) The Water Sector Development Forum took place in March 2023, serving as a high-level platform for stakeholder dialogue and sector advancement; and III) The Integrated Water Sector Development Task Force Meeting in May 2023 and IV) Water Sector coordination meeting in July 2024 aimed to strategize on integrated development within the water sector. These initiatives have significantly contributed to the project's goals of improving water governance and management practices by supporting the implementation of the Flagship projects outline in the gender-sensitive National Water Resources Strategy (NWRS, 2021-25). Key partners including the Somalia Joint Funds (SJF) , WB, AFDB and Gulf States have shown interest in			

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
						funding these projects including the; 1) Mobilize investment pipelines for scale up integrated water sector development (2023-2028); 2) Next Generation Programme for Sustainable Charcoal Reduction and Alternative Livelihoods (PROSCAL II (2024-2028); 3) Blue Invest (2024-2028); 4) Jowhar Off Stream project; and 5) Deep ground Water Development project.			
	Indicator 2: Number of direct project beneficiaries that have improved water management and agro-pastoral production capacities	BASELINE 2: None of the targeted agro-pastoralists have livelihoods resilient to climate shocks. Livelihoods need to be strengthened by providing communities the know-how to maintain and operate infrastructure such as during the dry season (e.g., earth dams and retention basins,	170,500 (50% women) who have improved access to water and livelihoods. This represents Somaliland: 91,598; and Puntland: 78,902	Approximately 148,000 agro-pastoralists across all states have enhanced livelihoods through access to water, diversified livelihoods and access to early warnings (50% women)		The project exceeded its end-term target by 1.18%, positively impacting 299,500 agro-pastoralists with improved access to water and livelihood diversification, including early warning systems—half of whom are women. The initiative's reach extended beyond the goal of 50,000 agro-pastoralists, with over 525,000 (52% women) utilizing alerts for droughts and floods, surpassing the target by 10.5% and enhancing early warning	TARGET 2: 296,000 agro-pastoralists across all states have enhanced livelihoods through access to water, diversified livelihoods and access to early warnings (50% women)		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
		boreholes, etc). They also need improved seed inputs for more productive agro-pastoralism practices.				dissemination capabilities. Water harvesting infrastructures were improved to adapt to climate change reaching approximately 111,200 households (52% women-headed households). Training in Integrated Water Resources Management was provided to 1,310 community resource persons (40% women), leading to better water conservation, value addition in livestock supply chains, and marketability of products like milk and hides, especially for women. Additionally, 850 individuals (30% women) gained short-term employment through nature-based solutions for water and climate change adaptation sub-projects.			
	Indicator 3: Number of policymakers and planners at national, state	BASELINE 3: No policy makers and planners at the national and district levels	Over 150 participants (with 30% women)	75 policy makers and planners (at		The LDCF2-GEF project significantly exceeded its goal by training 1,310 (almost nine times as many as targeted)	TARGET 3: 150 target policy makers and planners at the national and		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[15] (in parentheses: Midterm Rating)
	and district levels with awareness of climate-induced impacts on water resources and Integrated Water Resource Management (IWRM) principles	have knowledge on how to manage water in the context	trained on IWRM principles of managing water in the context of climate change	least 30% women)		including policymakers and planners as well as local community resource persons (40% women) in Integrated Water Resources Management. This initiative has been key in enhancing market delivery efficiency for Rangeland Improvement and Livestock Value Chains. Women's participation has been vital in improving resilience and ensuring their inclusion in the sustainable management of natural resources, particularly in water and climate change adaptation projects.	district levels have knowledge on how to management water in the context of climate change (at least 30% women participation)		

OUTCOME 1 INDICATORS

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
Outcome 1: National water resource management policy establishing clear national and district responsibilities	**Indicator 1:** A National IWRM Strategy is developed supporting a decentralized approach to water governance and that is gender-sensitive and integrates traditional, customary water resources management practices and governs water extraction / access rights, water conservation, water quality, and pro-poor water supply	BASELINE 1: Somalia's NAPA (2013) prioritised the development of a decentralized IWRM Strategy as its second priority in order to ensure water access is provided to vulnerable populations and sectors. Currently, pastoralists are marginalized relative to water access due to their lack of land tenure rights. There is no IWRM strategy or plan in any state. Somaliland and Puntland have their own Water Resources Policies that were recently endorsed by their state parliaments.	A gender-sensitive National IWRM Strategy and Road Map to support investment planning in the water sector across Somalia prepared and endorsed by the Federal Government of Somalia	A framework for a gender-sensitive National IWRM Strategy is developed and an update is made to one of the Water Resources Policies for either Somaliland or Puntland.		The partnership between the Ministry of Energy, Water Resources (MOEWR) of Somalia and the collaboration of the UNDP and GEF LDCF2 project is a strategic alliance. This collaboration has been instrumental for the Federal Government of Somalia in developing and endorsing the National Water Resources Strategy (NWRS) for 2021-2025. The NWRS serves as a comprehensive plan for enhancing sustainable water governance, management, and services across Somalia. This partnership reflects a shared commitment to sustainable development and effective water resource management in the region. To support this strategy, a National Water Management Task Force and a National Water Coordination	TARGET 1: A gender-sensitive National IWRM Strategy is developed that accounts for marginalized populations such as nomadic pastoralists. Updates to the remaining Water Resources Policy for either Somaliland or Puntland are made. All state Water Resource Policies and the National IWRM Strategy are endorsed.		**Moderately satisfactory to satisfactory since two of three KPI targets were met with the third one partially met** **(MTE: Moderately Satisfactory)**

16 Rating Scale: HS, S, MS, MU, U, HU

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
						Facility, with five specialized sub-groups, have been created to enhance flood response and water management, reflecting the NWRS's commitment to gender sensitivity and inclusivity. Funding from 2023 to 2028 for water projects will come from the Somalia Joint Funds, World Bank, African Development Bank, and Gulf States. These investments will support initiatives such as integrated water sector development, the PROSCAL II program, Blue Invest, the Jowhar Off Stream project, and the Deep Ground Water Development project. These efforts are part of the GEF LDCF2 project, aiming to close the gap between strategy and implementation while ensuring inclusivity. Moreover, MOEWR has launched an Online Dashboard to track integrated water interventions throughout Somalia, marking a significant			

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
						advancement in national water resource management.			
	Indicator 2: Enhanced curricula and programmes at educational and vocational institutes on water resource management and reflective of Somalia's gender dynamics	BASELINE 2: Under LDCF1 a national curriculum for university level education on climate change adaptation has been developed. A total of 30 faculty members (30% women) from Ahmoud University in Somaliland have been trained on the curriculum. In spite of efforts by LDCF1, skills to ensure water sector service delivery are also almost entirely lacking in Somalia. Somalis do not have the technical knowledge to support understaffed ministries (Ministries of Water, Livestock). As recommended by the Somaliland National Development Plan (2017 – 2021), there is a need to	A national-evel curriculum and syllabus for implementation of IWRM Masters Degree Program has been developed. The IWRM Master's Degree Program was launched in Somalia National University	Development and application of water resources management curricula at 3 universities and 3 vocational institutes (TVETs)		In collaboration with the Ministry of Energy, Water Resources (MOEWR) and the SIDA advanced curriculum has been adopted at the Somali National University (SNU), benefiting 35 students, 30% of whom are female. This initiative is instrumental in promoting sustainable water resource management and long-term adaptation to climate change by enhancing the capacity of young professionals to implement future water and climate initiatives. The LDCF-GEF project has supported the establishment of curricula for Technical and Vocational Education and Training (TVET) with a focus on water management. The MOEWR has completed a needs assessment for existing vocational training centers/institutions in consultation with relevant institutions and	TARGET 2: Development and application of water resources management curricula at 6 universities and 6 vocational institutes (TVETs)		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
		work on the technical level (TVETs) to produce trained water sector professionals.				actors at the Federal and Federal Members States. This assessment has facilitated the establishment of TVETs, meeting the end-of-project target. However, the plan to commission UNESCO-IHE to implement a high-level course in IWRM under the GEF Project did not materialise due to several key challenges: 1) The unavailability of in-person training ; 2) Organizational difficulties encountered by UNESCO-IHE in coordinating in-person training in Mogadishu and 3) The proposed budget by UNESCO-IHE, which primarily covered their lecturers, exceeded the resources allocated by the project. These challenges have significantly hindered the implementation of the IWRM course. The project team in collaboration with the Federal Ministry of Energy and Water Resources (MoEWR-FGS) the 2024 Letter of Agreements is being amended to			

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
						accommodate local outsourcing of the IWRM Course in the local Universities and TVETs based on the recommendation of the baseline report.			
	Indicator 3: Enhanced water quality (WQ) analysis equipment and trained technicians in 5 states (Puntland, Hirshabelle, Jubaland, Galmudug and Southwest states)	BASELINE 3: Water quality labs are very absent in Somalia. Somaliland's WQ lab was supported by AfDB and the WQ lab on the federal level was supported by other donors. In Puntland and the new Federal Member states, there are no water quality (WQ) monitoring capabilities. These regions lack the proper equipment for WQ analysis on surface water and groundwater sources. WQ labs are essential because surface water is the priority of the country for the coming 5 years. The laboratories will be critical to detecting and	0 Water Quality Labs established.	WQ laboratories in 1 Federal Member state of Somalia is established each with 5 trained water technicians (at least 30% of training recipients will be women)		The project has successfully met its end-term target, establishing a Water Quality Lab (WQ) in five states of Somalia: Puntland, Galmudug, Southwest, Hirshabelle, and Jubbaland. Each lab is fully equipped and staffed by five trained water technicians, totaling 25 across all states. Notably, women made up 30% of the trained recipients. The establishment of the WQ labs took into account approved specifications and gap analysis recommendations from the Federal Member States. These labs are now operational, with training guidelines and Standard Operating Procedures (SOPs) available in each state. The significance of these WQ labs for the agro-pastoral communities is	TARGET 3: A WQ lab in 5 states of Somalia (Puntland, Galmudug, Southwest, Hirshabelle and Jubbaland) are properly equipped with 5 trained water technicians (25 in total) (at least 30% of training recipients will be women)		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[16] (in parentheses: Midterm Rating)
		preventing water contamination.				immense. They play a crucial role in ensuring water quality, thereby supporting the health and productivity of these communities.			

OUTCOME 2 INDICATORS

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
Outcome 2: Transfer of technologies for enhanced climate risk monitoring and reporting on water resources in drought and flood prone areas	**Indicator 1a:** Procurement and installation of river gauges, flow meters and rain gauges to improve groundwater and surface water data collection in the ASALs and in the Juba and Shabelle river basins	BASELINE 1a: The prolonged civil war in Somalia saw the collapse of the climate monitoring network, which had recorded data between 1963 and 1990. The data gap post 1991 makes accurate flood and drought forecasting challenging. For the past 5 years, the FAO SWALIM, IGAD ICPAC and USAID's FEWSNET initiatives have focused on improving regional forecasting for Somalia, making	Procurement of equipment is under process	Densification of water resources monitoring by 50%. Procurement and installation of 6 AWS, 5 manual rain gauges, 4 synoptic stations, 2 radar river level sensors and 3 groundwater sensors to improve groundwater and surface water data collection		The LDCF-GEF project has procured and delivered Weather and Climate Monitoring equipment to the Ministry of Energy, Water Resources and Irrigation (MOEWR). This includes 13 Automatic Weather Stations (AWS), 10 manual rain gauges, 9 synoptic stations, and 4 radar river level sensors, along with fencing, spare parts, a secure data server, and 4 years of operation and	TARGET 1a: Densification of water resources monitoring by 100%. Procurement and installation of 13 AWS, 10 manual rain gauges, 9 synoptic stations, 4 radar river level sensors and 7 groundwater sensors to improve groundwater and surface water data collection		**Satisfactory to highly satisfactory since all targets were fully met by the end of the project cycle with the 2nd indicator significantly exceeding the planned target (MTE: Moderately Unsatisfactory)**

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18 Rating Scale: HS, S, MS, MU, U, HU

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
		use of the rehabilitated network of monitoring stations in addition to stations abroad (Kenya, Djibouti). The network is still extremely sparse with no groundwater sensors (i.e., piezometers) in the south.				maintenance (O&M) support. Training for four engineers and technicians has been completed, focusing on data collection, data treatment, data analysis, and O&M for weather equipment. Standard Operating Procedures (SOPs), aligned with the international standards of the World Meteorological Organization (WMO), have been established for O&M and data storage. The equipment is functional and has exceeded the			

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
						initial goal of serving 50,000 agro-pastoralists. Over 525,000 agro-pastoralist 52% of whom are women, are now utilizing alerts for droughts and floods. This surpasses the target by 10.5%, significantly enhancing early warning dissemination capabilities.			
	Indicator 1b: National Groundwater Development Action Plan that supports sustainable and cost-effective groundwater extraction	BASELINE 1b: FAO prepared a hydrogeological survey and assessment for Somaliland and Puntland in Dec 2012 that shows the number and yields of drilled and dug wells. Discharges from the wells and the aquifer types are indicated.	No Groundwater Development Action Plan framework has been developed	Development of a Groundwater development action plan framework		In partnership with the MOEWR, a Groundwater Development Action Plan has been completed. This includes a study on potential groundwater sites in the country and discussions on risk assessments, socio-economic	TARGET 1b: Development of a Groundwater development action plan specifying the proposed number of boreholes, their geographical locations and their cost estimations		

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
		Nonetheless, there is insufficient knowledge of the hydro-geology and expected yield in the south of the country which has prohibited borehole development and contributed to increasing risks of saltwater intrusion in the coastal areas and groundwater contamination throughout.				analysis, and the feasibility of digging pilot deep groundwater boreholes. The GEF LDCF2 project has supported the approved Deep Groundwater Development project by the Somalia Joint Funds, highlighting the importance of this initiative in the context of water resource management.			
	Indicator 2: Number of people/geographical area with access to improved climate-related early warning information	BASELINE 2: Existing alerts are typically circulated by email and cluster reports, targeting donor and civil society organizations. FAO SWALIM has distributed an extreme weather	The Early Warning System is not yet operational due to delays in procurement process	Alerts for droughts or floods are used by 25,000 agro-pastoralists (50% of the alert recipients will be women)		The system for better forecasting and occurrence information has been established and is expected to serve more than 500,000 agro-pastoralists with enhanced capacities of disseminating	TARGET 2: Alerts for droughts or floods are used by 50,000 agro-pastoralists (50% of the alert recipients will be women)		

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
		alert to fisherman along the Puntland coast. However, Mobile phone alerts have been distributed to Ministry focal points. Agro-pastoral populations have not yet directly received the alerts. For example, although it relies on mobile phones to disseminate warnings, the FRISC/DIGNIIN alert system, which gathers and sends flood and rainfall information, fails to reach pastoral communities. Due to their remoteness, 100% of the targeted agro-pastoralists are				early warnings on climatic events (droughts and floods). The Weather and Climate Monitoring equipment is functional and has exceeded the initial goal of serving 50,000 agro-pastoralists. Over 525,000 agro-pastoralist, 52% of whom are women, are now utilizing alerts for droughts and floods. This surpasses the target by 10.5%, significantly enhancing early warning dissemination capabilities.			

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
		not forewarned about and prepared for extreme events.							
	Indicator 3: Establishment of a National Hydro-Meteorological Service (NHMS)	BASELINE 3: The existing NHMS department located within the Federal Ministry for Energy and Water Resources is lacking technical and institutional capacity to collect, store and disseminate timely and accurate hydrological information to enable efficient and cost-effective management of water resources. The situation is similar in Somaliland and Puntland.	A National Hydro-Meteorological Services Policy is developed and endorsed by the Federal Government of Somalia	Framework to establish a nationally approved and capacitated National Hydro-Meteorological Service (NHMS) is developed (participation of at least 30% women)		The GEF LDCF2 project has successfully met its end-term target by establishing a nationally approved and capacitated National Hydro-Meteorological Service (NHMS), with 30% of its participants being women. This achievement marks a significant step towards gender equality in the field. The NHMS offices have been established, equipped with standard office spaces, servers,	TARGET 3: Establishment of a nationally approved and capacitated National Hydro-Meteorological Service (NHMS) (participation of at least 30% women)		

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
						and interactive information platforms. These facilities provide the necessary infrastructure for the NHMS to operate effectively. The NHMS is now fully functional and handles all weather and climate forecasting across Somalia. This capability is crucial for the country's preparedness and response to weather-related events, thereby contributing to the safety and well-being of its citizens. The successful implementation of the NHMS underscores the project's			

Result Level	Indicator[17]	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[18] (in parentheses: Midterm Rating)
						commitment to enhancing Somalia's meteorological services.			

OUTCOME 3 INDICATORS

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[19] (in parentheses: Midterm Rating)
Outcome 3: Improved water management and livelihood diversification for agro-pastoralists	**Indicator 1**: Number and type of physical livelihood assets constructed to reduce the impacts of floods and droughts	BASELINE 1: There is little functioning and climate-proofed physical infrastructure available in the target regions to mobilize surface water and groundwater and to divert flood waters for agro-pastoralists. The rural populations are at extreme risk because they do not have sufficient water for	Across Somalia, 13 water harvesting infrastructures were constructed and/or rehabilitated (Puntland: 08; Somaliland: 08). However, no civil works have been implemented in the remaining 04 Member States	1 new borehole and 1 rehabilitated borehole, 2 earth dams and 2 rehabilitated earth dam, 3 new berkeds, and 1 canal rehabilitation		The GEF LDCF2 project has successfully reached its end-term objective by instituting a nationally recognized and capacitated National Hydro-Meteorological Service (NHMS). Notably, women constitute 30% of its participants, marking a substantial stride towards achieving gender parity in this field. The NHMS is fully operational and is responsible for all weather and climate forecasting across Somalia. This functionality is crucial for the nation's readiness and response to weather-induced events, thereby playing a significant role in safeguarding its citizens and enhancing their well-being. The successful execution of the NHMS underscores the project's dedication to strengthening Somalia's meteorological services. The project has significantly exceeded its end-term targets for the construction and rehabilitation of civil works and water infrastructure, over-achieving 66% of the planned outcomes. Across Somalia, 40 optimized water harvesting infrastructures and nature-based solutions are now serving more than 111,200 households, with 52% being women-headed households. The breakdown of these achievements is as follows:	Establishment of a nationally approved and capacitated National Hydro-Meteorological Service (NHMS) (participation of at least 30% women) TARGET 1: 1 new borehole and 1 rehabilitated borehole, 1 new sand dam, 4 earth dams and 2 rehabilitated earth dams,		**Highly satisfactory; due to two of the three KPIs having significantly overachieved** **(MTE: Moderately Satisfactory)**

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Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[19] (in parentheses: Midterm Rating)
		drinking and irrigation. They are also subject to loss of livestock due to the fact that the most fertile areas are within or adjacent to wadis which are susceptible to flash flooding. There is a shortage of technical knowledge and capacity to apply surface water mobilisation and groundwater extraction techniques in Somalia. The Water Department				Somaliland: Established 1 sand dam, 1 earth dam, 3 water reservoirs, 3 shallow wells, 3 seed storage centres, and 6 new tree nurseries. Puntland: Completed 2 borehole rehabilitations, 1 shallow well rehabilitation, constructed 2 dams (1 surface sand dam and 1 earth dam), 1 earth dam with auxiliary works, 4 berkads (underground water reservoirs), and rehabilitated 4 rangelands (Adaption, Dangoryo, Gardo and Dahar). Jubaland: Rehabilitated 1 canal and established 1 fodder Scheme in Luuq district. HirShabelle: Established 1 fodder scheme and 1 flood retention wall. Galmudug: Established 2 water catchments and 1 fodder production. South West: Drilled 1 new borehole and established 1 water catchment. These accomplishments have significantly contributed to the improvement of water management, and diversification of livelihoods for the agro-pastorals in these regions.	3 rehabilitated shallow wells, 7 new berkeds, and 1 canal rehabilitation, 3 fodder production irrigation schemes and 1 set of flood protection infrastructure		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[19] (in parentheses: Midterm Rating)
		s have constructed numerous boreholes which have insufficient capacity and/or poor water quality and have been unable to capture wadis' periodic flows for the dry seasons. Moreover, during the high rainy periods, runoff cannot be effectively stored for use during the dry season.							
	Indicator 2: Number of trainer of trainers	BASELINE 2: The agro-pastoral communities	4 ToTs conducted (02 in Somaliland	Three ToTs trained on agro-pastoral		The project has significantly overachieved its mid-term targets on the training of trainers and the overall number of beneficiaries of training on IWRM and agro-pastoralist value chains. The gender disaggregated	TARGET 2: Capacities reinforced for		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[19] (in parentheses: Midterm Rating)
	(TOTs) with reinforced capacities to disseminate and sensitize communities on exploitation of the mild and hide value chains (disaggregated by gender)	have no capacity to develop diversified pastoral practices, taking advantage of the value chain (e.g., milk, meat, cheeses, hides). There are no specialized trainers on the milk and hide value chains to maintain and transfer knowledge.	and Puntland each). These trainers then conducted training in 06 villages each in Somaliland and Puntland (total: 12). As a result, 640 community resource persons trained on IWRM and agro-pastoralist value chains (40% of trainees were women)	value chain exploitation nominated in each village (22 training recipients initially, at least 30% women)		targets for this indicator have also been achieved. These trainings brought positive results by facilitating value addition along the supply chain with better upkeep and ensuring the marketability of the livestock, particularly for women to sustainably produce the products (milk, butter, hide, etc.) and increase the efficiency of its delivery to the markets. These include: -04 Training Trainers (TOTs) in Somaliland and Puntland. These trained trainers in turn conducted trainings in 06 villages in Somaliland and Puntland, each (12 in total). -1,260 community resource persons (40% women) were trained on Integrated Water Resources Management for Rangeland Improvement and Livestock Value Chains to increase the efficiency of their delivery to the markets -3 training manuals were developed for dairy, fodder and agribusiness.	three ToTs for agro-pastoral value chain exploitation nominated in each village (45 training recipients in total, at least 30% women)		
	Indicator 3: Number of hectares of rangeland revegetated and managed sustainably under a	BASELINE 3: Due to poor natural resource management and significant tree removal for charcoal production,	A total of 6,285 ha of rangeland has been rehabiliated, with 600 ha in Somaliland and 5,685 ha in Puntland. No rangeland	100 ha reforested in each state		The project has significantly surpassed its end-term targets for the rehabilitation of rangelands, achieving an aggregate of 1048% in Somaliland and Puntland. Approximately 6,285 hectares of rangelands have been rehabilitated, including 600 hectares in Somaliland and 5,685 hectares in Puntland. This achievement has strengthened the resilience and improved the livelihoods of over 50,000 households,	TARGET 3: 200 ha reforested in each state		

Result Level	Indicator	Baseline Value	Progress by end 2022 (Source: PIR)	Midterm Target	MT Progress Rating	Progress by end June 2024 (Source: PIR)	Final Target	Final Progress Rating vs. Final Target	Achievement Rating[19] (in parentheses: Midterm Rating)
	conservation scheme	agro-pastoralists and pastoralists are losing their forests and forage reserves. Consequently, agro-pastoralists do not have sustainable livelihoods and the region is subject to significant erosion and climate change impacts.	rehabiliation activities have been undertaken in the remaining 04 Member States			42% of which are headed by women. This has been accomplished by adopting sustainable practices for natural resources management at the local level. The restoration of rangeland productivity is crucial for agro-pastoral communities in ecologically fragile regions of Somalia. It supports the sustainability of natural resource-based livelihoods, combats desertification, enhances adaptation to climate change, and improves groundwater replenishment and fodder availability. This outcome underscores the project's commitment to safeguarding the environment and enhancing community resilience under extreme climatic conditions.			

5.10 Roles and responsibilities of Team Members

#	Position	Roles and Responsibilities
1.	International Consultant/ Team Leader (home-based)	a) Lead the design of the evaluation, including the development of a detailed research methodology and work plan; b) Develop the data collection tools and instruments to be used in the evaluation; c) Conduct the Desk Review of the project documents received from UNDP; d) Prepare the Inception Report for review by UNDP and incorporate feedback received and finalize the deliverable; e) Conduct Key Informant Interviews (KIIs) with key stakeholders as identified in the inception report; f) Collate the qualitative and quantitative data obtained from the Desk Review, KIIs conducted with various stakeholders, and from the National Consultant's detailed field notes from FGDs; g) Analyze the data obtained and evaluate the Project on the basis of the criteria outlined in the TORs; h) Present the evaluation's initial key findings in a post-review debriefing workshop; i) Prepare, edit, revise and review the Draft TE Report; j) Incorporate feedback of UNDP into the Draft Report and finalize the deliverable; k) Ensure quality of all deliverables.
2.	National Consultant in Somalia	a) Meet and coordinate with Team Leader to obtain guidance on undertaking the assignment; b) Coordinate and liaison with offices and persons of various key stakeholders and beneficiaries including but not limited to relevant local government offices, project management staff of Executing Agencies, and partners, for arranging interviews, if required; c) Conduct Desk Review of the relevant project documents shared by the International Consultant to get a thorough understanding of the project; d) Undertake data collection activities by conducting FGDs with different stakeholders using the tools developed by the International Consultant; e) In case of assistance needed by the International Consultant in conducting Key Informant Interviews (KIIs); f) Compile data gathered during Desk Review and field visits (through interviews and observations and interaction with project stakeholders and beneficiaries) and prepare and submit detailed notes to the International Consultant; and g) Participate in meetings with the International Consultant to present the significant findings of the assignment, when required.

5.11 Field-level Project Sites

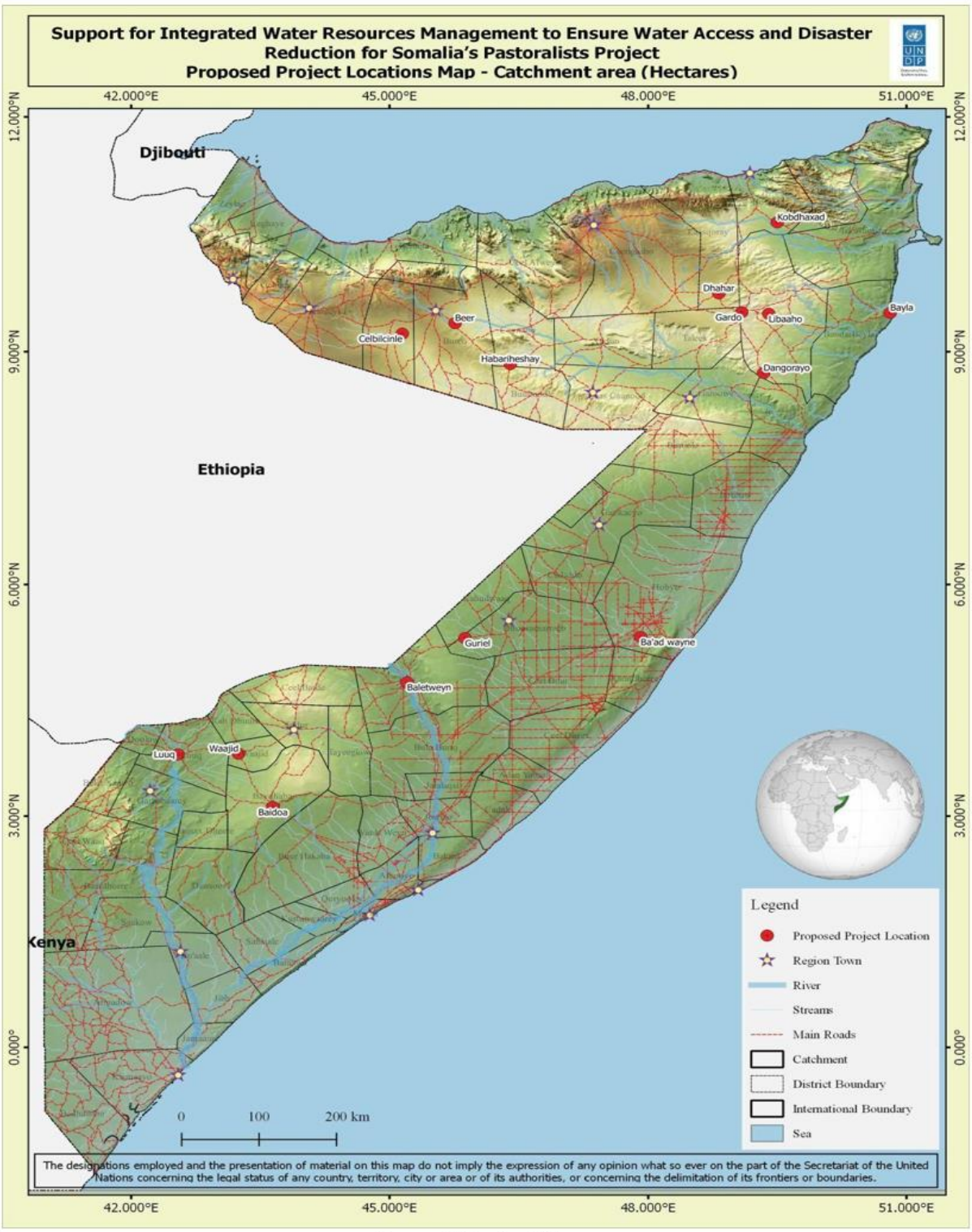

Figure 5: Project Sites

(Source: Prodoc, page 14)

5.12 List of documents reviewed

- Terms of Reference
- Prodoc
- Yearly Project Implementation Reports
- Mid-Term review report
- Board and technical meeting minutes
- Signed LoAs and official amendment documentation
- Field Visit Reports
- Donor Reports
- AWPs
- M&E Plans
- Procurement Plans
- IP Progress Reports
- HACT Report
- TPM Reports
- Etc.

5.13 Co-financing table

Sources of Co-financing	Name of Co-financer	Type of Co-financing	Co-financing amount confirmed at CEO Endorsement (US$)	Actual Amount Contributed at the stage of Midterm Review (US$)	Actual % of Expected Amount
In-kind contribution	Ministry of Energy and Water Resources – Federal Somalia	Recurrent Expenditures	8,000,000	1,500,000.00	18.75
Parallel Co-financing	EU	Investment mobilised	60,144,000	12,500,000.00	20.78
Parallel Co-financing	GWP	Investment mobilised	100,000	70,000.00	70
Cash contribution	UNDP	Investment mobilised	1,500,000	575,629.00	38.37
Parallel Co-financing	UNICEF	Investment mobilised	-	90,000.00	100
Parallel Co-financing	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	Investment mobilised	-	370,000.00	100
TOTAL			**69,744,000**	**15,232,629**	**21.84**

5.14 TE Rating scales

TE Ratings & Achievement Summary Table for "Support for Integrated Water Resources Management to Ensure Water Access and Disaster Risk Reduction for Somalia's Agro-Pastoralists"

Measure	MTR Rating	Achievement Description
Project Strategy	N/A	
Progress Towards Results	Objective Achievement Rating: (rate 6 pt. scale)	
	Outcome 1 Achievement Rating: (rate 6 pt. scale)	
	Outcome 2 Achievement Rating: (rate 6 pt. scale)	
	Outcome 3 Achievement Rating: (rate 6 pt. scale)	
Project Implementation & Adaptive Management	(rate 6 pt. scale)	
Sustainability	(rate 4 pt. scale)	

Ratings for Progress Towards Results: (one rating for each outcome and for the objective)		
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.

Ratings for Sustainability: (one overall rating)		
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review
2	Moderately Unlikely (MU)	Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained

5.15 UNEG Code of Conduct for Evaluators

ToR Annex E: UNEG Code of Conduct for Evaluators

Independence entails the ability to evaluate without undue influence or pressure by any party (including the hiring unit) and providing evaluators with free access to information on the evaluation subject. Independence provides legitimacy to and ensures an objective perspective on evaluations. An independent evaluation reduces the potential for conflicts of interest which might arise with self-reported ratings by those involved in the management of the project being evaluated. Independence is one of ten general principles for evaluations (together with internationally agreed principles, goals and targets: utility, credibility, impartiality, ethics, transparency, human rights and gender equality, national evaluation capacities, and professionalism).

Evaluators/Consultants:

Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.

1. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
2. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
3. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
4. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
5. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
6. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
7. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
8. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Evaluator: _____Craig Naumann_____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____Warendorf, Germany_____ (Place) on _Oct 17, 2024_____ (Date)

Signature: 

5.16 Compiled anonymized field level evidence (filled Evaluation Matrix)

The data has been extracted from interview transcripts of KIIs and FGDs carried out by the evaluation team through on-site as well as on-line interviews. To ensure complete anonymity of data so no answer can possibly be traced back to any interview respondent(s), all utterances underwent a careful screening process. Where individual inputs formed a pattern or cluster of similar answers, the essence of the messages was compressed into one text item representing the various inputs. To uphold ethical standards and protect informants, no direct quotes were cited.

Evaluation Criteria	**Key Evaluation Questions**	**Answers and Comments** *(including case studies and other narrative/qualitative elements)*
Relevance and Coherence	• Did the project address the needs of target beneficiaries at the local and regional levels? Mashruucu ma wax ka qabtay baahiyaha ka faa'iideystayaasha la beegsanayo ee heer degmo iyo heer gobol?	Yes, the project addressed the needs in various ways: - Water Access and Infrastructure: - Constructed critical water infrastructure, including dams, Berkads, and reservoirs, to ensure water availability for households, agriculture, and livestock. - Diverted floodwaters that previously destroyed farmland and villages, protecting communities from displacement and enhancing agricultural viability. - Installed solar-powered pumps, animal watering troughs, fencing for dams, and generators to improve functionality and sustainability of water systems. - Alignment with Regional and Sectoral Goals: - The project aligned with regional goals of ensuring safe water access and climate resilience. - Activities were designed in consultation with local communities and validated to ensure inclusiveness and relevance. - Climate Change Adaptation: - Implemented measures to combat deforestation and land degradation, including rehabilitating rangelands and distributing seedlings and saplings. - Constructed stone walls and basins to capture and control rainwater, reducing the impact of heavy rains and enabling its use for farming and ecosystem restoration. - Promoted afforestation efforts, creating nurseries and teaching communities tree planting techniques that benefited flora, fauna, and the environment. - Capacity Building: - Provided training to communities on water management, forest preservation, afforestation, and agribusiness, including dairy production and value addition. - Established governance structures, such as water committees, to oversee water resource management and ensure sustainability. - Economic and Social Benefits: - Improved fodder production and storage through facilities like hangars, enabling better livestock management and higher milk yields. - Conducted studies on local milk production, increasing knowledge and improving practices among beneficiaries. - Distributed equipment for dairy production, enhancing economic opportunities, particularly for women involved in processing and distributing dairy products. **Success Stories:**

		- Flood Management and Agriculture: A farmer shared how, before a dam was constructed, water runoff destroyed their farmland, creating holes and cracks that rendered it unusable. The dam and stone-laying activities controlled water flow, reducing destruction and allowing the farm to thrive. The farmer expressed gratitude to UNDP and donors, noting an increase in the village population as the dam improved living conditions. - Dairy Production in a Village: With improved fodder availability, the village saw a significant rise in milk production. Milk is now transported to Burco town for further processing, packaging, and distribution. This has had a positive economic impact, particularly benefiting women who are heavily engaged in the dairy value chain. - Flood Prevention in another Village: Before the project, heavy rains caused flooding that destroyed homes and fields, forcing the community to relocate during rainy seasons. With the construction of stone-made basins and tree planting, flooding was controlled, and water was harnessed for farming. The dam now provides clean, accessible water, allowing children to fetch water locally and easing the burden on women. - Improved Accessibility for Vulnerable Groups: A disabled individual expressed happiness with the project, highlighting how the dam eliminated long distances previously required to fetch water and reduced the need to buy water. The individual praised the project sponsors and implementers for addressing this critical accessibility issue. - Impact of Free Water Access: - Previously, women paid 3,000 Somali shillings for 20 liters of water. With the dam's construction, free water access will eliminate this expense once the dam fills with rainwater, relieving financial burdens for households.
	(Was the project internally coherent in its design?) *(Mashruucu ma gudaha nashqaddiisa ayuu isku xidhnaa?)*	Yes - Integration of Features: - The program was fully integrated and provided much-needed water to the community. It incorporated a range of coherent design elements, including dams equipped with: - Animal watering troughs. - Solar-powered pumps to extract water from reservoirs. - Water storage tanks and storage facilities. - Additional components, such as nurseries for growing saplings and cupboards for seed storage, complemented the water management efforts. - Community Perception of Coherence: - Local stakeholders rated the project as a meaningful and impactful initiative. Water management interventions improved risk management and positively influenced the livelihoods of agro-pastoral communities. - A village chairman highlighted the coherence of the project, noting that rehabilitated water points significantly boosted fodder production, which in turn benefited agro-pastoral activities. - Community members, including women's groups, praised the integration of various water infrastructure features as well-designed and beneficial. - Economic and Agricultural Impacts: - The rehabilitation of water points and construction of storage facilities increased fodder production, enhancing livestock and dairy activities. - Surplus dairy products were sold along the value chain, generating income for local inhabitants and boosting the village economy. Additional disposable income allowed for reinvestment

		in household goods and services, indirectly benefiting those not involved in agro-pastoral activities. - Training and Capacity Building: - Villagers received training on efficient water usage, further contributing to the sustainability of the water infrastructure. - Hydro-Meteorological Integration: - The project included a weather forecasting station equipped to collect data on critical metrics like flood levels and water conditions. This supported flood prediction and water resource management, enabling farmers to make informed decisions about planting and irrigation, ensuring sustainable agricultural practices. - Opportunities for Improvement: - While overall design was considered coherent, some villagers suggested that the piping could have been extended to reach village centers, enhancing accessibility further.
	(How has the project been relevant with respect to other donor-supported activities?) (Sidee mashruucu u khuseeyey hawlaha kale ee ay deeq-bixiyayaashu taageeraan?)	Donor Contributions to Water and Agriculture: World Bank and WFP: Provided equipment and infrastructure support for rainwater harvesting. FAO: Distributed farming tools, supported planting trees, and provided related training. UNICEF: Drilled boreholes and constructed dams. Save the Children and IOM: Dug boreholes to improve water access, particularly in areas with internally displaced people (IDPs). World Vision and FAO: Assisted with seed distribution, tree planting, and the provision of farming tools. Coordination Efforts: Donor activities were coordinated through water sector coordination meetings, co-chaired by State and Federal authorities. Awareness of Donor Activities: Some community members acknowledged boreholes in surrounding villages but were unaware of which donors were responsible for constructing them.
	• How well did the GEF IWRM project adapt to any changes in the contextual work environment and how well has the design been able to adjust to changing external circumstances? Intee in le'eg ayuu mashruuca GEF IWRM ula qabsaday isbeddel kasta oo ku yimaadda jawiga shaqada ee macnaha guud iyo sida wanaagsan ee nashqadahu u awooday in ay ula qabsato isbeddelka xaaladaha dibadda?	- Community Involvement and Local Adaptation: - During the design stage, ministries and local communities in both Puntland and Somaliland were actively involved in customizing the project to align with local needs and environmental contexts. - Community members contributed extensively to implementation, with locals providing 90% of the manual labor, such as laying stones. - Community awareness and sensitization activities facilitated acceptance and active participation, ensuring the project adapted well to its contextual environment. - Inclusivity and Gender Equality: - Women played a significant role in project activities: - They represented more than 25-30% of training participants and were heavily involved in planting nurseries. - Awareness efforts emphasized inclusivity and gender equality - Women, as primary water collectors at the household level, were among the main beneficiaries of improved water access. - Boosting Confidence and Reducing Resistance:

		- Sensitization efforts highlighted the importance of women's participation in development, building confidence that their investments in farming would no longer be wasted due to flooding. - Awareness activities reduced the risk of resistance by addressing concerns and fostering community ownership. - Engagement of Vulnerable Groups: - Disabled persons actively participated in consultations, water committee meetings, project trainings, and awareness sessions. This inclusivity extended beyond this project, reflecting a broader commitment to their involvement in development initiatives in villages like Berxano. - Trainings and Adjustments: - Training programs covered critical topics such as tree planting, water conservation, and environmental impacts, enabling communities to adapt their practices to changing circumstances. - Sensitization efforts supported the integration of community input into project implementation, ensuring alignment with evolving local priorities.
Effectiveness	• How effective was the risk and risk mitigation management? Sidee bay waxtar u ahayd khatarta iyo maaraynta yaraynta khatarta?	Challenges and Adaptations During COVID-19: - Community sensitization activities were delayed during the peak of the COVID-19 pandemic (2019-2021) due to restrictions on gatherings. Alternative communication methods, such as radio, television, and internet platforms, ensured continued community awareness and engagement. - Climate-Related Risk Mitigation: - The introduction of climate-proof infrastructure, such as dams and afforestation initiatives, effectively mitigated the impacts of climate change. Proactive measures, including tree planting and water conservation, minimized environmental and economic risks. - Community-Level Risk Management: - Committees were established in every beneficiary village to manage potential risks, ensuring the protection of infrastructure like dams and fodder storage silos. This preparation mitigated risks such as the destruction of critical resources, fostering sustainability. - Perception of "No Risks": - Many stakeholders reported no significant risks associated with the project. Community members noted that the project was designed to deliver only benefits, with proactive measures already in place to address potential risks. Committees in villages were prepared to mitigate risks, ensuring readiness to protect infrastructure and resources. - Security Risks: - Insecurity along the Mogadishu-Baidoa road delayed the transportation of materials for a dam in Baidoa. The contractor resolved this challenge through air transport. No additional significant risks were reported. - Political Tensions: - Initial tensions between Somaliland and Somalia were identified as potential risks. However, these eased over time, facilitating smoother implementation of the project. - Stakeholder Engagement and Proactive Planning:

		- The project actively engaged stakeholders in risk management and incorporated proactive planning to reduce the environmental and economic impacts of water-related hazards.
	• What lessons can be drawn regarding general effectiveness for other similar projects in the future? Maxaa casharo ah oo laga qaadan karaa waxtarka guud ee mashaariicda kale ee la midka ah mustaqbalka?	- Land Degradation and Productivity: - The community learned that land degradation can be reduced through human capability and interventions such as laying stones or rocks to slow water runoff. This strategy increased the productivity of farmlands that were previously destroyed during rainy seasons. - Other villages have already adopted this method, showcasing its potential for replication. - Sustainability and Ownership: - Customizing project activities through community consultations and engagement led to greater buy-in and ownership by beneficiaries. - A water committee successfully introduced a revenue collection mechanism to rehabilitate water management facilities and support schools and MCH services, ensuring the project's sustainability. - Capacity-building efforts, integrated into all project activities, ensured communities acquired skills and knowledge, further enhancing sustainability and acceptance. - Fodder Production and Economic Impact: - Communities learned skills for large-scale fodder production and storage, enabling them to produce sufficient feed for animals even during droughts and dry seasons. This shift reduced dependency on humanitarian aid and allowed for surplus fodder to be sold to livestock traders, including those exporting to markets like Saudi Arabia and Ethiopia. - Water Access and Hygiene: - Improved water availability had significant effects on hygiene and daily life. For example, women in one village reported being able to bathe daily, compared to only three times a week previously, thanks to the availability of water. This highlights the broader social benefits of water access. - Community Sensitization and Awareness: - Sensitization activities created awareness about the project's effectiveness, fostering a sense of ownership among beneficiaries. - There is a need to further sensitize communities on hygiene practices, including building toilets and distributing hygiene kits. - Collaboration and Stakeholder Participation: - Effective collaboration between the Government of Somaliland, UNDP, contractors, and the community contributed to the success of the project. - Ensuring participation of all relevant stakeholders, including local communities and government agencies, addressed diverse interests and fostered ownership. - Integration with National Frameworks: - The project activities were aligned with broader national development frameworks and strategic state-level objectives, ensuring relevance and support for overall sustainable development goals. - Enhanced Water Management: - Training on water reservation and management for both people and animals increased the sustainability of project initiatives.

		- The water committees' capacity-building efforts led to better management of local water resources. - Project Design and Acceptability: - Community consultations during the design phase improved the acceptability and relevance of the project. This approach ensured interventions were tailored to local needs and priorities.
Efficiency	• Which partnerships/linkages were facilitated? Waa kuwee shuraakooyinka/isku xidhka la fududeeyey?	- The government and local communities demonstrated a development-oriented approach, welcoming development partners and actively facilitating project implementation. - Community leaders played a pivotal role in fostering partnerships between government entities, UNDP, and local stakeholders. - State and Federal Government Collaboration: - Although the initial political relationship between the Federal Government in Mogadishu and authorities in Somaliland was strained, these relations improved significantly over the project cycle. Coordination forums in the water sector contributed to fostering collaboration and partnership. - The Government of Somaliland supported the project by ensuring unrestricted access to villages and providing logistical and administrative support during field visits. - Women's Economic Empowerment: - Partnerships with women's groups enabled training in the dairy value chain and related trading. These efforts facilitated value addition to milk production and sales, boosting the local economy and benefiting farmers, cattle owners, merchants, contractors, and service providers. - Ministry and Community Collaboration: - The Ministry of Water worked closely with communities to ensure timely construction of dams and other infrastructure, demonstrating effective collaboration. - Multi-Level Stakeholder Engagement: - Linkages and collaboration were established among local stakeholders, state governments, and national government entities. These partnerships ensured alignment and coordination across different levels of governance. - Engaging local communities ensured that water management practices were culturally appropriate and had strong local support, enhancing long-term sustainability. - Capacity Building for Sustainability: - Training and capacity-building efforts strengthened partnerships by increasing local ownership of project activities. Water committee members and the local population gained skills that enhanced their ability to manage and sustain project outcomes effectively.
	• What was the level of efficiency of cooperation and collaboration arrangements; and which methods were successful or not, and why? Waa maxay heerka hufnaanta iskaashiga iyo qabanqaabada iskaashiga; iyo hababka lagu guuleystay ama aan ahayn, iyo sababta?	- Successful Cooperation and Collaboration: - Collaboration between state governments, national authorities, UNDP, and local communities was widely acknowledged as a key factor in the project's success. - Puntland state actively worked with UNDP to create a conducive environment for implementation. - Community consultations were a pivotal method, facilitating decision-making on construction locations and design features, which enhanced relevance and ownership. - Community Engagement:

	Mashruucu miyuu si hufan uga faa'iidaysanay awooda maxaliga ah ee fulinta?	- Communities openly welcomed the project, allocating land for infrastructure and actively participating in decision-making. - Disabled community members expressed a strong willingness to collaborate with all partners contributing to development efforts. - Multistakeholder Coordination: - The project brought together various stakeholders, including government agencies, contractors, and local communities. This coordination fostered dialogue, incorporated diverse views, and created a strong sense of ownership. - Collaboration extended to training programs and workshops that built technical skills and knowledge among local stakeholders, improving the management of water resources and ensuring sustainability. - Monitoring and Support: - Regular detailed on-site monitoring was successfully conducted throughout the implementation phase, contributing to the efficiency of the project. - Trainings and close supervision of project activities enhanced the effectiveness of specific interventions and overall outcomes. - Absence of Security Risks: - Easy access to villages and communities, facilitated by the absence of security threats, enabled seamless collaboration and smooth project implementation. - Challenges in Collaboration: - Political differences between state and national governments sometimes hindered collaboration. Despite this, collaboration between communities and state governments was maintained. - A lack of robust data collection and monitoring systems created challenges in assessing the project's impact and making informed decisions. Stakeholders requested stronger local-level monitoring and better data systems for future projects. - Impact Across Sectors: - The project delivered multisectoral benefits, including improvements in food security, livelihoods, the local economy, health, and hygiene. These impacts were noted as outcomes of effective collaboration among stakeholders.
	• Did the project efficiently utilize local capacity in implementation? Mashruucu miyuu si hufan uga faa'iidaysanay awooda maxaliga ah ee fulinta?	- Utilization of Local Labour: - The project effectively utilized local capacity by involving the local population in manual labor for tasks such as stone laying, constructing berkads and dams, transporting materials, and rehabilitating boreholes. - This approach not only supported the implementation but also created casual labor opportunities for villagers, injecting additional income into the local economy. - Training and Skill Development: - Villagers received training on water resource management and governance, enabling them to set up and manage water committees. These committees filled technical roles and ensured sustainable water management practices. - Newly acquired skills and knowledge from training sessions contributed to greater ownership of the project, increasing the likelihood of its long-term success. - Involvement of Local Contractors and Suppliers: - Some villagers participated as contractors or supplied materials for construction activities. Sourcing labor, materials, and

		machinery locally, whenever possible, further supported the local economy. - Employment Opportunities: - Beyond casual labor, the project created jobs for roles such as watchmen employed by contractors, contributing to regular operations and project sustainability. - Challenges in State Involvement: - While local people were actively engaged, there were instances where political differences between state-level and national governments led to reduced involvement of state authorities in specific activities, such as the construction of a dam. - Community Ownership: - High levels of community involvement in project activities fostered a sense of ownership among the population. This engagement is expected to enhance the longevity and sustainability of the project.
	• To what extent did the project adopt a coordinated and participatory approach in mainstreaming gender into policies and programs? Ilaa intee in le'eg ayuu mashruucu qaatay hab isku dubaridan oo ka qaybqaadasho ah oo lagu dhex gelinayo jinsiga siyaasadaha iyo barnaamijyada?	- Women's Participation in Decision-Making: - Women were actively involved in decision-making processes and participated in various village committees, including water management committees. - Women held significant roles in these committees, such as treasurer positions, with three of seven committee members in some villages being female. - Consultation and Inclusion: - Women were consulted during the design and implementation phases of the project. Their inclusion ensured that their perspectives and needs were considered, particularly given their central role in water collection in Somali communities. - Gender Representation in Committees: - The project adhered to gender policies such as Somaliland's mandate of ensuring at least 30% female participation in project activities and committee memberships. Women constituted 25-30% of the water management committee members across villages. - Regular forums and board memberships in other sectors also included women, ensuring gender considerations were mainstreamed across various project dimensions. - Participation in Training Programs: - Women participated in all training sessions, representing 25-30% of the attendees. These training programs enhanced their skills and knowledge, empowering them to contribute effectively to decision-making and water management practices. - Impact on Gender Roles: - The project brought water sources closer to households, significantly reducing the burden on women, who traditionally bear the responsibility of fetching water. This improvement had a direct positive impact on women's daily lives and allowed them to engage more actively in community development. - Mainstreaming Gender into Policies: - Gender considerations were integrated into project policies and programs through a participatory approach. Women's interests were coordinated, and their inclusion in project activities helped ensure that gender perspectives were reflected in decision-making and planning processes.

		- Skill Development for Women: - Training for both male and female water committee members equipped women with the skills and knowledge necessary for effective participation in decision-making, ensuring long-term sustainability and inclusivity in water resource management.
	• How extensively has the project involved individuals with disabilities? Intee in le'eg ayuu mashruuca ka qayb qaatay shakhsiyaadka naafada ah?	- Representation in Committees: - Individuals with disabilities (PwDs) were represented on water management committees and actively participated in project management through committee meetings and decision-making processes. - A blind individual was among the committee members engaged in focus group discussions (FGDs), highlighting the inclusive approach of the project. - Consultations and Sensitization: - PwDs were included in community consultations during the sensitization phase of the project to ensure their perspectives were integrated into the final design features and project plans. - Ministries and community leaders confirmed that the few PwDs living in villages were consulted during the design and implementation phases. - Accessibility Enhancements: - The project incorporated barrier-free access to water facilities, ensuring that disabled individuals could benefit equally from the project's outcomes. - Cultural Appropriateness: - Engaging local communities in disability inclusion ensured that solutions were not only functional but also culturally appropriate and widely accepted.
Sustainability	• What degree of local ownership of initiatives and results is there? Waa maxay heerka lahaanshaha deegaanka ee waxqabadyada iyo natiijooyinka ayaa jira?	- Community Engagement and Buy-In: - The project achieved a strong degree of local ownership, evidenced by the community's allocation of land for infrastructure construction and their active involvement in planning, decision-making, and implementation processes. - Social mobilization and community-level engagement at project sites in Puntland fostered a sense of ownership, increasing the sustainability of results. - Management of Resources: - Communities established committees to manage water resources and facilities created through the project, such as dams, fodder storage hangars, and boreholes. - Committees employed local watchmen to oversee and maintain infrastructure, ensuring continued functionality after the project's completion. - Financial Contributions: - Community members demonstrated ownership by pooling money to address infrastructure maintenance challenges. For example: - In one village, the community bought a small generator for pumping water after the solar-powered system broke down. - Handover to Communities: - Government officials confirmed that the handover of project management to communities had already taken place. Communities now manage facilities independently, demonstrating readiness for post-project sustainability. - Sustainability Perceptions:

		- Community members expressed confidence in their ability to sustain project outcomes after UNDP and contractors exited. They view the project as fully owned and driven by the community, with no significant concerns for future sustainability. - Community-Based Approach: - The use of a community-based approach, involving local people in the early planning stages, helped tailor initiatives to local needs and conditions. This active involvement from the beginning strengthened community support and long-term commitment to the project.
	(What is the level of political commitment to build on the results of the project?) (Waa intee heerka ballanqaadka siyaasadeed ee lagu dhisayo natiijada mashruuca?)	- State Government Commitment: - The state government expressed a strong commitment to ensuring communities benefit from the project. - Future Development Initiatives: - The state ministry is actively extending project benefits, such as laying pipes to connect village centers to dam reservoirs, ensuring more households have access to water. - Both state and national governments have committed to supporting this project and future initiatives aimed at improving water access for communities. - Policy Integration: - The project was integrated into national water policies and development plans, aligning its objectives with broader development frameworks. - Collaborative Approach: - The project involved various stakeholders, including federal and state governments as well as local communities, fostering a collaborative approach to resource management. - Challenges with Political Coordination: - While no policies were reported to have negatively impacted the project, some stakeholders noted that political differences between national and state governments might occasionally hinder better collaboration.
	• Are there policies or practices in place that create perverse incentives that would negatively affect long-term benefits? Ma jiraan siyaasado ama dhaqamo abuuraya dhiirigelino qalloocan oo si xun u saameeya faa'iidooyinka mustaqbalka fog?	- Absence of Negative Policies: - According to interviewees, there are no policies or practices in place that could negatively impact the long-term benefits of the project. - Puntland and Somaliland have robust environmental regulations and water management policies aimed at reducing environmental degradation and supporting sustainable development. - Positive Policy Environment: - Somaliland has policies focused on environmental protection and climate change mitigation, which promote positive development initiatives and align with the region's needs. - Short-Term Funding Challenge: - The project was implemented under short-term funding, which prioritized quick and visible results. This focus on immediate gains may have limited the ability to address long-term solutions and sustainability challenges for the communities. - Community Resource Management: - Communities have established committees to manage resources, contributing to sustainability despite the short-term funding structure.

	• Are there adequate incentives to ensure sustained benefits achieved through the project? Ma jiraan dhiirigelin ku filan si loo hubiyo faa'iidooyinka joogtada ah ee lagu gaaro mashruuca?	- Community Cost-Sharing Contributions: - Communities contribute small amounts to support the sustainability of dams and other water infrastructure. These funds are used to: - Pay watchmen to oversee and protect infrastructure like berkads and dams. - Cover small maintenance and repair costs to prevent damage and ensure continued functionality. - Employment Opportunities: - Contractors prioritized hiring local labor and contractors, creating job opportunities within the community. This approach fostered a sense of ownership and responsibility towards the project activities, promoting sustainability. - Capacity Building: - Training programs developed local skills for maintaining and expanding the project, enabling communities to take charge of infrastructure upkeep and resource management. - Encouragement Through Immediate Benefits: - Enhancements like dams, berkads, tree planting, and fodder production provided immediate benefits, motivating communities to support and maintain the infrastructure. - Challenges and Recommendations: - A solar energy system used in some villages requires maintenance expertise, which is currently lacking at the local level. Communities expressed concern about their inability to repair or maintain the system if it fails. - A recommendation is to train local electricians and contractors in solar panel installation, maintenance, and repair. This could be addressed through other complementary projects. - Sector Coordination: - Promoting collaboration among government sectors (e.g., ministries of water, agriculture, environment, and climate change) ensures a holistic approach to water management, further strengthening sustainability. - Involvement in Decision-Making: - Active community participation in decision-making processes ensured the project met local needs and encouraged long-term commitment to its success.
	• Are there risks to the environmental benefits that were created or that are expected to occur? Ma jiraan khataro ku wajahan faa'iidooyinka deegaanka ee la abuuray ama la filayo inay dhacaan?	- General Perceptions of Risk: - Most community members reported no foreseeable risks created by the project. Beneficiaries expressed confidence that environmental threats, both long-term and short-term, were adequately addressed through the project design. - Concerns About Flooding: - A few community members raised concerns about potential flooding during heavy rainfall. They feared that dams might overflow, causing damage to nearby villages and homes. - Others, aware of the project's design, noted that the dams were built with outlets to release excess water, mitigating the risk of overflow and flooding. - Potential Unintended Impacts: - Some concerns were raised about the lack of integrated planning for water use and management. Prioritizing water for human and animal needs over environmental requirements could

		harm natural habitats, potentially leading to water depletion and negative impacts on local ecosystems. - Community Awareness: - Beneficiaries indicated that they were generally unaware of any specific threats to the environment beyond the concerns about dam overflow. This reflects a need for further awareness and education on long-term environmental risks and sustainable practices.
	• Are there any long-term environmental threats that have not been addressed by the project? Ma jiraan khataro deegaan oo mustaqbalka fog ah oo aan mashruucu waxba ka qaban?	- Threats Mitigated by the Project: - The project reduced soil erosion and farmland destruction, enabling increased farming activity and improved fodder availability. - Flood risks during the rainy season were mitigated by constructing dams upstream to protect villages from flooding. - Unaddressed Environmental Threats: - Charcoal Burning: This remains a significant issue in some areas and has not been adequately addressed by the project. Continuous training and broader distribution of seeds for reforestation efforts are required to combat deforestation effectively. - Natural Events: Frequent natural events in Somalia, such as droughts and erratic rainfall, continue to disrupt water availability and quality, affecting humans, animals, and ecosystems. These events represent ongoing challenges that need integrated long-term solutions. - Economic Challenges Affecting Sustainability: - Global inflation has increased the cost of energy for operating boreholes and the price of materials in the region, potentially limiting the sustainability of project infrastructure over the long term. - Community and Stakeholder Perspectives: - Most community members and stakeholders reported that they were unaware of any long-term environmental threats that had not been addressed by the project. This perception indicates confidence in the project's mitigation measures but also highlights a potential need for increased awareness about broader environmental risks. - Political Challenges: - Political differences between federal and state governments could hinder the full realization of project benefits for local communities, potentially affecting the sustainability of environmental outcomes.
	• Have any new environmental threats emerged in the project's lifetime? Ma jiraan wax khatar deegaan oo cusub oo soo baxay intii uu noolaa mashruuca?	- No Reported Threats: - Most stakeholders, including community members and interviewees, reported no new environmental threats during the project's implementation. - Positive Outcomes: - Communities gained awareness of fodder production's importance and began creating their own fodder reserves for use during the dry season. - Inspired by the project, individuals replicated the design of berkads and implemented their own privately owned water storage facilities to enhance water provision, fodder production, and farm productivity. - Saplings from the nursery established during the project have the potential to be replicated in other villages, given the absence of security risks and full accessibility in Somaliland.

		- Emerging Risks and Challenges: - Extreme Weather Events: The increasing frequency and severity of extreme weather, such as floods and droughts, disrupt water availability and quality, impacting humans, animals, and ecosystems. - Urbanization Impact: Rapid urbanization in villages due to improved water access could lead to pollution, deforestation, and strain on existing water management systems. - Theft of Materials: Instances of theft, such as stolen solar systems and water pipes, posed challenges to maintaining project infrastructure. - Political Challenges:Political differences between the national and state governments may hinder effective collaboration and long-term sustainability of project results.
	• Is there potential to scale up or replicate project activities? Ma jirtaa suurtagal in kor loo qaado ama lagu celceliyo hawlaha mashruuca?	-Evidence of Replication: - Community members have already started replicating project-supported techniques, such as laying stones and rocks on their farms to reduce soil erosion and destruction of farmland. - In one village, the community adopted fodder production techniques, creating fodder storage buffers to enhance resilience during dry seasons. This practice has also led to local seed production and the storage of seeds for reproduction. - Fodder Production Challenges and Opportunities: - In another village, a baler machine for fodder production remains unused because farmers lack the financial means to rent tractors needed for its operation. While they can afford the fuel, the rental costs for tractors pose a barrier. - Refresher training for fodder management, transportation, and the operation of baler machines could enhance the scalability of fodder production efforts. - Scaling Infrastructure Designs: - The dam design and related infrastructure can be replicated by other organizations or communities seeking to manage water resources effectively. - Communities have requested additional infrastructure improvements, such as piping water directly to households, which could be integrated into scaled-up initiatives. - Training and Capacity Building Needs: - Refresher training on operating and maintaining solar units, dams, and other project-supported infrastructure would strengthen community capacity and ensure sustainability. - Skills training on engine operation and maintenance could address technical gaps and support broader adoption of these systems. - Community-Driven Scaling: - Engaging local communities in planning and implementation ensures solutions are tailored to their needs and are more likely to succeed when replicated. This participatory approach has demonstrated effectiveness in fostering sustainability.
	(What are the key challenges and obstacles to the sustainability of results of the project initiatives that must be directly and quickly addressed?) *(Waa maxay caqabadaha muhiimka ah iyo caqabadaha hortaagan joogteynta natiijooyinka mashruucyada*	*- Training and Capacity Building:* *- Continuous training on water management, fodder production, and milk production is essential to ensure that communities maintain and expand the benefits of the project.* *- Specialized skills and equipment are needed for maintaining solar systems, posing a challenge for community-led maintenance.* *- Water Management and Governance:*

	mashruuca oo ay tahay in si toos ah oo degdeg ah wax looga qabto?)	*- Effective water management requires robust community engagement and the establishment of water committees to prevent conflicts and ensure equitable resource distribution.* *- Accurate and timely data collection is lacking in many regional governments, which hinders effective monitoring and adaptation of water resource management strategies.* *- Infrastructure and Maintenance:* *- The theft of solar systems and water pipes has posed risks to the sustainability of water-related infrastructure.* *- Communities have implemented small cost-sharing contributions to maintain water infrastructure, but these efforts may need further institutional support for long-term sustainability.* *- Funding Constraints:* *- IWRM projects rely on short-term funding, which may jeopardize long-term sustainability. Continuous and adequate funding is crucial to maintain and scale successful initiatives.* *- Insecurity and Logistics:* *- Insecurity on the Mogadishu-Baidoa road due to terrorism has delayed construction activities, requiring contractors to use air transport for materials. This has increased costs and timelines.* *- Environmental and Climate Challenges:* *- Climate change poses risks to water resources, affecting availability and quality. Adaptive strategies have been implemented but require sustained efforts to address long-term impacts.* *- Delays in rainfall or scarce rain seasons could temporarily affect the utilization of water resources, though the project's infrastructure will benefit communities when rains come.* *- Community-Led Replication and Innovation:* *- Community-driven efforts, such as small-scale dam replication and fodder production, need further support to enhance their effectiveness and scalability.*
Impact	*(Which areas/arrangements under the project show the strongest potential for lasting positive impact?)* *(Waa kuwee aagag/ qabanqaabada hoos timaada mashruuca oo tusa awooda ugu xoogan ee saamayn togan oo waarta?)*	- Improved Access to Water: - The construction of dams and diversion of water channels have ensured access to water for communities, reducing the risk of flooding and destruction in villages. - Villagers emphasized that the new water infrastructure has brought stability, as expressed by a blind old man who no longer fears displacement during rainy seasons thanks to the dam's construction. - Irrigation and Agricultural Development: - Dams provide irrigation that supports farming activities, enabling villagers to grow fresh vegetables. This has improved food security, diversified diets, and created small business opportunities through local markets. - The project's efforts to reduce soil erosion and rangeland degradation have allowed farming to continue or restart with a renewed sense of security and confidence, boosting farmers' morale. - Community-Led Replication of Designs: - Some farmers have adopted and replicated project-supported designs, creating their own small-scale dams and berkads for water catchment. These initiatives also benefit adjacent farms by preventing flooding and improving productivity. - Economic Upliftment:

		- The project has increased household wealth by enabling the sale of milk and fodder. This economic activity has improved livelihoods and created trickle-down benefits for the broader community. - Cattle and livestock are now substantial sources of milk, meat, hides, and bio-fertilizer, further supporting local economies. - Education Access: - Increased settlement in areas with improved water access has led to a rise in school enrollment. New schools were constructed to accommodate the growing population, enhancing educational opportunities for children. - Capacity Building and Technical Training: - The training of 15 individuals in borehole operations, solar energy installations, and water management has provided long-term technical capacity. These individuals, now certified with diplomas, operate and maintain 15 boreholes in Somaliland. - Skills in civil engineering, solar energy repair, and borehole maintenance ensure the sustainability of water infrastructure. - Enhanced Community Resilience: - Communities have developed fodder storage techniques and are creating buffer reserves for dry seasons, increasing resilience to climatic fluctuations. - Requests for extended water piping systems to households reflect community-driven efforts to expand the benefits of the project. - Environmental Benefits: - Reduced degradation of rangelands and improved soil stability have alleviated environmental pressures, making the area more conducive to farming and livestock production.
	• What are the key challenges and obstacles to achieving intended impact? Waa maxay caqabadaha iyo caqabadaha ugu muhiimsan ee lagu gaari karo saameynta loogu talagalay?	- Delays in Project Implementation: - The project experienced a late start, which hindered its implementation, particularly during the rainy season when accessibility constraints limited progress. - Water Accessibility: - Many community members stated that water points remain too far from their households. While the Ministry has confirmed that piping installations are underway, the lack of immediate household-level access remains a barrier. - Extreme Weather Events: - The increasing frequency and severity of extreme weather events, such as floods and droughts, disrupt water availability and quality. These natural events negatively impact humans, animals, and ecosystems, posing significant challenges to water resource management. - Infrastructure Challenges: - Bale-making devices for fodder production are not in use due to the lack of tractors for operation. The devices have fallen into disrepair, requiring repairs and refresher training for farmers. - Delayed rains might temporarily affect the impact of dams, but adequate rainfall would resolve these issues. - Capacity and Expertise: - Limited technical expertise in the local community impedes the effective implementation of some project components, such as solar system maintenance and mechanical fodder production.

		- Many regions lack robust data collection and management systems, making it difficult to monitor and adapt Integrated Water Resource Management (IWRM) strategies effectively. - Short-Term Funding: - Short-term project funding threatens the sustainability of activities and the realization of long-term benefits. - Gender-Based Challenges and Opportunities: - Previously, women and girls faced risks such as Gender-Based Violence (GBV) while fetching water over long distances. This has been mitigated by bringing water sources closer to households. - Women's participation in water committees and decision-making processes has increased, empowering them economically and socially. However, sustaining this progress requires continued support and resources. -Incentives for Stakeholder Engagement: - A lack of incentives and remuneration for training participants may hinder active participation and reduce project ownership. Introducing such incentives is critical for maintaining stakeholder engagement and ensuring long-term sustainability. - Positive Social and Economic Impacts at Risk: - Women's empowerment through training and equipment for dairy and fodder production has led to economic benefits. Ensuring the continuation of these activities will depend on addressing the challenges related to equipment use and maintenance.
Cross-cutting issues	• **Gender equality and women's empowerment** ○ What factors contributed or influenced the GEF IWRM project's ability to positively contributed to or influence transformational change from a gender perspective and women's economic empowerment, at the levels of policy, technological upgrading/transfer and livelihoods support? • Sinnaanta jinsiga iyo xoojinta haweenka o Maxay yihiin qodobbada gacan ka geystay ama saameeyay awoodda mashruuca GEF IWRM ee si wax ku ool ah uga qaybqaato ama u saameeyo isbeddelka isbeddelka marka laga eego aragtida jinsiga iyo xoojinta dhaqaalaha haweenka, heerarka	- Policy Support for Gender Equality: - The project benefited from policies promoting gender equality and women's rights. These policies ensured equal access for women to project resources, decision-making processes, and benefits, fostering gender equity across various activities. - Women's inclusion in water management committees and decision-making processes was a direct outcome of these policies, strengthening their participation in governance at the community level. - Participation in Committees and Decision-Making: - Women were included in water management committees, where they represented a significant proportion of decision-makers. This enhanced their role in shaping water management practices and community planning. - Female participation in decision-making increased trust and respect for women's capabilities among men, creating a more harmonious and equitable relationship between genders. - Training and Capacity Building: - Women participated in training sessions on water management, dairy production, and afforestation. These activities empowered women with skills that enabled them to take leadership roles and contribute to livelihoods development. - Groups established by PENHA were trained in milk production and dairy value chain activities, allowing women to generate income through products like cheese, butter, and yoghurt. - Economic Empowerment through Livelihoods Support: - Women, along with individuals with disabilities (PwDs), became active contributors to the dairy value chain and fodder production, generating income and achieving economic empowerment.

	siyaasadda, horumarinta tignoolajiyada / wareejinta iyo taageerada hab-nololeedyada?	- The availability of water supported agro-pastoral and household needs, benefiting women as they traditionally manage household tasks like cooking, cleaning, and hygiene. - Impact on Girls and Gender-Based Violence: - Girls no longer need to travel long distances to fetch water, reducing their risk of experiencing Gender-Based Violence (GBV). This improvement in water accessibility has also allowed girls to dedicate more time to education and other opportunities. - Inclusion of People with Disabilities (PwDs): - PwDs, both men and women, were actively involved in project activities. They made up 25% of beneficiaries in milk production and nearly 30% in water management committees. - A blind man serving on the water committee expressed satisfaction with the project's inclusiveness and its positive impact on PwDs' access to water. - Improved Household and Community Dynamics: - Women's access to resources and leadership roles has resulted in improved hygiene, reduced health-related concerns, and better risk management within communities. This has created a positive ripple effect for families and the broader community. - Long-Term Transformational Change: - The project's approach to actively involve women in community decision-making processes ensured that their needs and perspectives were integrated into water management plans, resulting in more inclusive and effective practices. - These activities fostered tangible female empowerment, transforming traditional gender roles and contributing to lasting societal change.
	• **Disability inclusion & Human rights** o To what extent were PwD interests and human rights perspectives included in the design, implementation and monitoring of project interventions at the level(s) of policy design, technology transfer/capacity development and livelihoods support? • Ka mid noqoshada naafada & xuquuqul insaanka o Ilaa xad intee le'eg ayay danaha naafada iyo aragtiyaha xuquuqul insaanka lagu daray qaabaynta, fulinta iyo la socodka faragelinta mashruuca ee heer(yada) qaabaynta siyaasada, wareejinta tignoolajiyada/hormarinta awooda iyo taageerada hab-nololeedyada?	- Inclusion in Policy Design: - People with Disabilities (PwDs) were consulted during the design phase of the project, ensuring their interests and specific needs were considered in infrastructure planning, such as dams and water management systems. - Stakeholder inputs, including those from PwD community members, were consolidated into the final project specifications to address diverse requirements. - Representation in Decision-Making: - PwDs were actively included in water management committees across project sites. For instance, the chairman of a water management committee in Dalsan is a PwD, demonstrating leadership and meaningful participation. - PwD representation in decision-making processes ensured that their perspectives were integrated into the management and operation of water resources. - Participation in Capacity Development: - PwDs were part of all trainings provided under the project, including sessions on water management and fodder production. This empowered them with technical skills and knowledge to contribute effectively to community resource management. - Training initiatives reinforced the rights of PwDs to equal participation and equipped them to benefit from project outcomes. - Livelihoods Support: - PwDs were among the primary beneficiaries of improved access to water, ensuring their needs at the household level were met.

		- By participating in fodder production and water management activities, PwDs were able to engage in livelihood-enhancing opportunities, contributing to their economic empowerment. - Equity and Rights Recognition: - The project ensured that PwDs had equal access to water resources and were treated as equal stakeholders in decision-making processes. - However, the level of inclusion varied across regions and project activities, indicating room for improvement in consistently addressing PwD rights.