# Environmental and Social Management Plan (ESMP)

Rehabilitation and Upgrading of ESMP Baardheere Water Catchment- Shimbiroole & Sirinley and Their Auxiliary Structures
Somalia Food Systems Resilience Project (S-FSRP)
Jubaland State – Baardheere District, Gedo Region

Prepared by

FOOD and AGRICULTURE ORGANIZATION(FAO)
In coordination with

MINISTRY OF AGRICULTURE AND IRRIGATION, JUBALAND STATE &
FEDERAL MINISTRY OF AGRICULTURE AND IRRIGATION (FMOAI)

Under

Somalia Food System Resilience Program (S-FSRP)
Technical Assistance
Component 5: Contingency Emergency Response Component
UTF/SOM/088/SOM

Date: April 2026

# LIST OF ABREVIATIONS AND ACCRONYMS

| Acronym | Definition |
|---|---|
| BoQ | Bill of Quantities |
| CHS | Community Health and Safety |
| C-ESMP | Contractor Environmental and Social Management Plan |
| CoC | Code of Conduct |
| EHS | Environmental, Health and Safety (World Bank Group Guidelines) |
| EPMA | Environmental Protection and Management Act (Somalia, 2024) |
| ESIA | Environmental and Social Impact Assessment |
| ESS | Environmental and Social Standard (World Bank) |
| ESF | Environmental and Social Framework (World Bank) |
| ESMP | Environmental and Social Management Plan |
| ESMF / FESM | Environmental and Social Management Framework (S-FSRP) |
| FAO | Food and Agriculture Organization of the United Nations |
| FGS | Federal Government of Somalia |
| GBV | Gender-Based Violence |
| GM | Grievance Mechanism |
| GRS | Grievance Redress Service (World Bank) |
| IDP | Internally Displaced Person (not used heavily in this ESMP but included for completeness) |
| ILO | International Labour Organization |
| LMP | Labor Management Procedures |
| MoAI-FGS | Ministry of Agriculture and Irrigation – Federal Government of Somalia |
| MoAI-JS | Ministry of Agriculture and Irrigation – Jubaland State |
| MoECC | Ministry of Environment and Climate Change (Federal) |
| MIS | Management Information System |
| NPCU | National Project Coordination Unit (MoAI-FGS) |
| O&M | Operation and Maintenance |
| OHS | Occupational Health and Safety |
| PIU | Project Implementation Unit (State MoAI) |
| PPE | Personal Protective Equipment |
| SEA | Sexual Exploitation and Abuse |
| SEA/SH | Sexual Exploitation, Abuse, and Sexual Harassment |
| SEP | Stakeholder Engagement Plan |
| SH | Sexual Harassment |
| SMP | Security Management Plan / Framework |
| S-FSRP | Somalia Food Systems Resilience Project |
| SOP | Standard Operating Procedure |
| TA | Technical Assistance |
| TMP | Traffic Management Plan |
| UNCCD | United Nations Convention to Combat Desertification |
| WBG | World Bank Group |
| WMP | Waste Management Plan |

| | |
|---|---|
| WUC | Water User Committee |
| OIG | Office of the Inspector General for FAO |

## LIST OF TABLES

# TABLE OF CONTENTS

# Executive Summary

This Environmental and Social Management Plan (ESMP) has been prepared for the rehabilitation of Shimbiroole and Sirinley water catchments and their associated auxiliary structures in Shimbiroole and Sirinley villages Baardheere District, Gedo Region, Jubaland State. The subprojects are financed by the World Bank under the Somalia Food Systems Resilience Project (S FSRP) and implemented by the Federal Ministry of Agriculture and Irrigation (MoAI FGS) through the National Project Coordination Unit (NPCU), in collaboration with the Jubaland State Ministry of Agriculture and Irrigation Project Implementation Unit (MoAI PIU). In this context, the Food and Agriculture Organization of the United Nations (FAO) provides Technical Assistance (TA) under a formal TA Agreement, which includes technical assessments, detailed catchment engineering designs, preparation of environmental and social safeguards instruments, construction supervision, incident reporting, and support to the project's Management Information System (MIS) and dashboard systems. The Shimbiroole and Sirinley water catchments were identified as priority sites during the Baardheere District technical assessment due to severe siltation, reduced capacity, and community reliance on seasonal runoff-based water systems.

***Overview of the Clustered Water Catchment Subprojects***

This Environmental and Social Management Plan (ESMP) covers the rehabilitation of two existing communal water catchments located in Baardheere District, Gedo Region, in Jubaland State. The two subprojects are geographically close, technically similar, and function as critical seasonal water sources for surrounding rural and pastoral communities. Both catchments have experienced extensive siltation, embankment erosion, and reduced storage capacity due to prolonged use, recurrent drought cycles, and uncontrolled runoff inflows, which have significantly diminished their ability to retain water through the dry season.

The proposed interventions focus on restoring and expanding the functional storage capacity of both catchments, improving structural stability, and enhancing safe and organized water access for domestic and livestock use. Rehabilitation works include full desilting and reshaping of the basins to the standardized dimensions of approximately 100 m × 90 m × 3 m, stabilization of side slopes, and installation of improved inlet protection to manage runoff safely. In line with the standard catchment package defined in the technical assessment, the works will further include installation of solar powered pumping systems, construction of pump chambers, placement of elevated plastic storage tanks, construction of dedicated livestock watering troughs, and perimeter fencing to reduce contamination and protect the infrastructure. Supporting facilities such as a kiosk and caretaker room will also be installed to strengthen operation, distribution management, and site security.

These measures collectively aim to increase water retention efficiency, reduce sediment inflow, enhance climate resilience, and support safer and more sustainable water management practices within the Shimbiroole and Sirinley communities.

***Description of Individual Catchments***

1. **Shimbiroole Water Catchment:** Located in Shimbiroole Village within Baardheere District (coordinates: 2°18'30.2979"N, 42°16'56.8584"E), the existing catchment currently holds approximately $272\ m^3$, which is insufficient to meet seasonal demand. Following rehabilitation, the storage capacity will increase to approximately 27,000 m³ per filling cycle. The intervention will significantly enhance water availability for domestic and livestock use while reducing dry-season vulnerability.

2. **Sirinley Water Catchment:** Located in Sirinley Village within Baardheere District (coordinates: 2°23'12.5879"N, 42°16'50.2011"E), the existing catchment currently holds approximately 83 m³, reflecting severe siltation and structural deterioration. As a result, the catchment is almost non-functional, with its shallow depth and limited storage unable to support community needs during dry periods**.** Post-rehabilitation capacity will increase to approximately 27,000 m³. Structural improvements and lining will reduce seepage and improve water retention, thereby strengthening year-round water security.

***Water Demand and Adequacy***

Each catchment catchments serves an estimated 45 households, equivalent to approximately 270 people, together with around 945 livestock in the surrounding area. Using Sphere minimum standards of 20 liters per person per day and an estimated livestock requirement of 10 liters per head per day, the combined annual water demand for each village is approximately 5346 cubic meters. With post rehabilitation storage designed to reach a standardized capacity of about 27,000 cubic meters per filling cycle, and given that the catchments typically refill at least twice per year under normal rainfall conditions, both Shimbiroole and Sirinley water catchments are expected to provide sufficient water to meet domestic and livestock needs throughout the year. The rehabilitation therefore directly addresses existing storage limitations, improves reliability, and enhances resilience to climate variability for pastoral and agro pastoral households in Baardheere District

***Environmental and Social Risk Classification (ESS1 Requirement)***

Based on the environmental and social screening conducted in November 15th 2025, the clustered rehabilitation of the two water catchments is classified as a ***Moderate Risk activities*** under the World Bank Environmental and Social Framework (ESF).

This classification reflects the localized and reversible nature of anticipated impacts, the absence of land acquisition or physical displacement, and the feasibility of implementing effective mitigation measures through this ESMP and the Contractor's C-ESMP.

***Summary of Key Risks and Mitigation Measures***

Given the nature of earthworks, lining installation, and auxiliary construction activities, several environmental and social risks have been identified.

- ***Environmental risks*** primarily include soil erosion, embankment instability, sedimentation during excavation, dust and noise emissions from machinery, improper spoil disposal, and risks of fuel or oil spills. These risks will be mitigated through controlled excavation and staged compaction, riprap protection of spillways, sediment and drainage management, designated spoil disposal areas, bunded fuel storage, and on-site spill response kits.

- ***Community health and safety risks*** include temporary water access disruption during construction, risks to livestock near excavation zones, traffic hazards, and potential worker–community interaction risks including SEA/SH. These risks will be addressed through phased construction scheduling, temporary alternative water arrangements where required, fencing and signage, traffic management measures, mandatory Codes of Conduct, SEA/SH awareness training, and confidential reporting mechanisms.

- ***Occupational health and safety risks*** include excavation hazards, heavy machinery operation, heat stress, dehydration, and electrical hazards associated with solar installations. Accordingly, mitigation measures include mandatory PPE use, daily toolbox talks, trained first-aiders on site, grounding and certified electrical installations, and continuous supervision by FAO and PIU safeguards personnel.

***Stakeholder Engagement and Consultation***

Stakeholder engagement was undertaken in accordance with the S-FSRP Stakeholder Engagement Plan (SEP) and included structured consultations with Baardhere District authorities, technical staff, and community representatives, including elders, pastoralists, women, youth, IDPs, and Water Committee members from Shimbiroole and Sirinley villages. Discussions confirmed prioritization of the two catchments, reviewed current structural conditions, validated the proposed excavation to standardized dimensions and protective lining where required, and agreed on the package of auxiliary works: solar-powered pumping systems, pump chambers, elevated storage tanks, livestock troughs, perimeter fencing, and kiosks/caretaker facilities, alongside O&M capacity building and operationalization of the Grievance Mechanism (GM). Institutional stakeholders emphasized increasing storage efficiency, rehabilitating eroded embankments, strengthening inlet protection and erosion control, coordinating during implementation, and improving data on beneficiary households and livestock. At community level, participants highlighted siltation, reduced capacity, embankment wear, safety risks around open access, and concerns about temporary disruptions, equitable access, inclusion of vulnerable households (including IDPs), and long-term O&M responsibilities. These inputs have been integrated into the ESMP through inlet protection and embankment stabilization measures, fencing and livestock management structures, construction-phase safety controls, phased works planning to minimize disruption, prioritization of local employment in line with the LMP, and the GM consistent with ESS10.

***Summary of the Grievance Mechanism (GM) (ESS1, ESS2, ESS5, ESS10)***

A project-level Grievance Mechanism (GM) is in place to ensure accessible, transparent, and timely resolution of concerns raised by community members and project workers. Complaints may be submitted verbally or in writing through community focal points, the construction contractor, the PIU, FAO field staff, phone hotlines, or complaint boxes. All grievances are acknowledged within 48 hours and are subsequently assessed and addressed—typically within 7 to 14 days, depending on complexity. Importantly, the GM includes confidential and survivor-centered SEA/SH reporting channels (see Annex 6), which bypass community structures and are handled exclusively by trained GBV focal points at the PIU, FAO Compliance, or FAO Office of the Inspector General (OIG). No personal data is recorded for SEA/SH cases, and the GM ensures inclusivity for women, youth, minority groups, internally displaced persons, and persons with disabilities.

***Institutional Roles and Responsibilities***

MoAI-FGS/NPCU provides overall oversight, ESMP approval, compliance monitoring, and reporting. MoECC provides the national environmental regulatory framework. FAO serves as Supervising Engineer and Technical Assistance provider, responsible for safeguards verification and day-to-day supervision. The Jubaland MoAI-PIU leads field coordination and GM management at the state level. The contractor implements the ESMP and C-ESMP, including OHS, pollution prevention, community safety, and SEA/SH mitigation. Community structures support communication and post-rehabilitation O&M.

***ESMP Implementation, Monitoring, and Budget***

To ensure effective implementation of mitigation measures commensurate with the Moderate Environmental and Social Risk classification of the clustered water catchment rehabilitation subprojects (Shimbiroole and Sirinley ), a dedicated Environmental and Social Management Plan (ESMP) implementation budget has been allocated for each site. The ESMP budget covers safeguards supervision, occupational health and safety (OHS) provisions, community health and safety measures, stakeholder engagement activities, grievance mechanism (GM) operations—including confidential SEA/SH reporting channels—capacity building for contractors and community structures, monitoring missions, and safeguards reporting. These resources are essential to operationalize the ESMP, the Contractor's Environmental and Social Management Plan (C-ESMP), and associated instruments in line with the World Bank Environmental and Social Framework (ESF).

Accordingly, an ESMP implementation budget of USD 10, 341.90 per subproject has been allocated, resulting in a total clustered ESMP budget of USD 20, 683.38 for the two water catchments. This allocation ensures proportional safeguards coverage across all sites and enables systematic monitoring by FAO as Supervising Engineer in coordination with the Jubaland State MoAI PIU and MoAI-FGS/NPCU. Through structured supervision, routine site inspections, compliance verification, and adaptive management where necessary, the ESMP budget supports full adherence to ESF requirements while strengthening environmental protection, community safety, and sustainable operation of the rehabilitated water catchment systems.

# 1. Introduction

## 1.1 Background

The Somalia Food Systems Resilience Project (S-FSRP), financed by the World Bank and implemented by the Federal Ministry of Agriculture and Irrigation (MoAI-FGS), supports the long-term resilience of Somalia's food and agricultural systems through investments in climate-smart infrastructure, institutional capacity, innovation, and inclusive service delivery. Among its central priorities is the rehabilitation and strengthening of critical water infrastructure, including water catchments and small-scale water storage systems that sustain agro-pastoral communities across drought-prone regions. In Jubaland State, particularly within Baardheere District, prolonged droughts, erratic rainfall patterns, sediment accumulation, and limited maintenance have significantly reduced the effectiveness of traditional water catchments. The Shimbiroole and Sirinley water catchments serving surrounding agro-pastoral villages have progressively lost storage capacity due to siltation, embankment degradation, and uncontrolled runoff, thereby weakening water availability during dry seasons and increasing vulnerability to climate-related shocks such as prolonged dry spells and rainfall variability.

Over recent years, extended drought cycles have severely affected these communities, resulting in reduced livestock productivity, heightened water scarcity for domestic use, increased migration in search of water, and economic strain on vulnerable households. Although the two catchments are existing community assets, their current storage capacities are substantially below functional requirements. Consequently, their reduced performance undermines household water security, livestock survival, and overall community resilience during prolonged dry periods. The rehabilitation of these catchments has therefore been prioritized to restore storage capacity, improve structural integrity, and enhance sustainable water management in alignment with climate adaptation objectives under S-FSRP.

To address these gaps, the Federal Government entered into a formal Technical Assistance (TA) Agreement with the Food and Agriculture Organization of the United Nations (FAO). Under this agreement, FAO provides technical assessments, topographic and hydrological surveys, detailed engineering designs, preparation of environmental and social instruments, construction supervision, incident reporting, and support to the project's MIS/dashboard. FAO's role under the TA is strictly technical assistance and supervision, while MoAI-FGS, through the National Project Coordination Unit (NPCU), remains the implementing agency. At the state level, the Jubaland Ministry of Agriculture and Irrigation (MoAI-JS) leads field coordination through its Project Implementation Unit (PIU). The Federal Ministry of Environment and Climate Change (MoECC) serves as the national authority for environmental and social regulation in accordance with the Environmental Protection and Management Act (2024). Collectively, these institutions ensure compliance with Somalia's environmental and social laws throughout the project cycle.

The rehabilitation of the Shimbiroole and Sirinley water catchments was prioritized following joint field assessments and environmental and social screening exercises conducted under the World Bank Environmental and Social Screening Tool. The screening classified the clustered subprojects as Moderate Risk, meaning potential impacts are site-specific, temporary, reversible, and readily managed through appropriate safeguards measures. Accordingly, and in line with national regulatory requirements and the S-FSRP Environmental and Social Management Framework (FESM), a site-specific ESMP rather than a full Environmental and Social Impact Assessment (ESIA) is required to guide safe, sustainable, and compliant implementation of the rehabilitation works in accordance with the Government's commitments under the Environmental and Social Commitment Plan (ESCP).

In line with the World Bank Environmental and Social Framework (ESS4 and ESS10) and the S-FSRP SEA/SH Prevention and Response Action Plan, the project recognizes the potential risk of Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) associated with labor influx, contractor–community interactions, and power imbalances during construction activities. Although the clustered water catchment subprojects are assessed as Moderate Risk, proactive SEA/SH risk management measures are integrated from the outset. These include mandatory Codes of Conduct for all project and contractor personnel, SEA/SH awareness and training for workers and communities, confidential and survivor-centered grievance reporting channels, and referral pathways to appropriate service providers. Responsibility for SEA/SH risk prevention, reporting, and response is clearly defined among the contractor, FAO as TA provider, MoAI-FGS/NPCU, and the Jubaland State PIU, with monitoring embedded within routine safeguards supervision and reporting mechanisms.

## 1.2 Purpose of the ESMP

This Environmental and Social Management Plan provides the operational framework for identifying, preventing, mitigating, and monitoring environmental and social risks associated with the rehabilitation of the Shimbiroole and Sirinley water catchments. It aims to:

- Identify potential environmental and social risks and impacts arising from the rehabilitation works in accordance with the World Bank Environmental and Social Framework (ESF), national regulations, and S-FSRP screening procedures.
- Propose practical, site-specific mitigation and monitoring measures that safeguard communities, workers, natural resources, and the environment during construction and operation.

- Define clear institutional roles and coordination mechanisms among MoAI-FGS/NPCU, the Jubaland State MoAI PIU, FAO (as TA provider), the contractor, local authorities, and community water management structures.
- Ensure compliance with all relevant S-FSRP safeguard instruments, including the FESM, Stakeholder Engagement Plan (SEP), Labor Management Procedures (LMP), Grievance Mechanism (GM) Framework, Security Management Framework, and the SEA/SH Prevention and Response Action Plan.
- Serve as the reference document for the contractor's Contractor Environmental and Social Management Plan (C-ESMP), which will translate ESMP requirements into detailed worksite-specific procedures covering OHS, labor standards, environmental protection, community safety, access management, and emergency preparedness.

By doing so, the ESMP ensures that the rehabilitation works not only restore water storage functionality and improve water security for agro-pastoral communities, but also uphold the principles of sustainability, climate resilience, inclusivity, and safeguards compliance throughout the project lifecycle.

## 1.3 Methodology

Preparation of this ESMP followed a structured, evidence based, and participatory methodology combining desk reviews, field assessments, hydrological and technical analyses, and stakeholder engagement. A review of key documents, including the S FSRP Environmental and Social Management Framework, national environmental regulations, the Technical Assistance Agreement, the environmental and social screening results, and relevant baseline environmental and social information for Baardheere District, provided the regulatory and safeguards foundation for the assessment.

Fieldwork was conducted jointly by FAO engineers, Jubaland State Ministry of Agriculture and Irrigation PIU technical staff, local water committee representatives, and community members. These assessments examined existing catchment conditions, sediment accumulation levels, embankment stability, spillway performance, silt trap functionality, lining requirements, solar pumping feasibility, livestock access arrangements, fencing alignments, and areas exposed to flooding or erosion. Hydrological considerations, including storage capacity, seasonal rainfall variability, runoff patterns, and water retention efficiency, were integrated into both technical design and safeguards planning. Socioeconomic consultations were held with elders, women, youth, pastoralists, agro pastoral households, internally displaced persons, and local leaders to understand water sharing practices, livelihood dependencies, vulnerable groups, safety concerns, and expectations for the rehabilitation works.

Collected data were analyzed in relation to the World Bank Environmental and Social Framework, the national Environmental and Social Impact Assessment Regulations of 2024, and the S FSRP Environmental and Social Management Framework to determine risk levels, Environmental and Social Standards relevance, and appropriate mitigation measures. The ESMP also incorporates requirements from the Stakeholder Engagement Plan, Labor Management Procedures, Grievance Mechanism Framework, Security Management Framework, SEA SH Prevention and Response Action Plan, and Occupational Health and Safety guidance. Importantly, the ESMP has been structured to support digital reporting through the S FSRP Management Information System dashboard, enabling systematic tracking of environmental and social performance indicators during implementation.

Through this combination of technical analysis, regulatory alignment, and community participation, the ESMP provides a realistic, context appropriate, and operational safeguards framework for the successful rehabilitation of the two water catchment subprojects in Baardhere District.

**Environmental and Social Screening Tool and Process**

The environmental and social screening for the two water catchment rehabilitation subprojects was conducted using the World Bank Environmental and Social Screening Tool as prescribed under the S FSRP Environmental and Social Management Framework. The screening tool systematically evaluates proposed activities against predefined environmental and social criteria, including land use, biodiversity, water resources, labor and working conditions, community health and safety, vulnerability of affected groups, security context, and SEA SH risk exposure. The tool also identifies the relevance of applicable Environmental and Social Standards and determines the appropriate safeguards instrument required for the subprojects.

The screening was carried out through a combination of site inspections, stakeholder consultations, technical assessments, and review of baseline environmental and social conditions. The completed screening checklists and risk classification matrices are provided in Annex 1. Based on the screening outcomes, the two subprojects were collectively classified as Moderate Risk, thereby triggering preparation of a site specific clustered ESMP rather than a full Environmental and Social Impact Assessment. The screening results directly informed the scope of impact assessment, selection of mitigation measures, monitoring requirements, and institutional arrangements outlined in this ESMP.

**Brief Explanation of Risk Ranking Methodology**

The ESMP uses a qualitative risk ranking methodology consistent with the World Bank Environmental and Social Framework (ESF). Risks are screened and ranked based on two core parameters:

**1. Likelihood (Probability of Occurrence)**

Assessed based on site conditions, past experience, and expert judgment.

- Low – Unlikely to occur
- Moderate – Could occur under certain conditions
- High – Likely to occur without mitigation

**2. Consequence (Severity of Impact)**

Reflects how serious the environmental or social impact would be if the event occurred.

- Low – Localized, reversible, minimal disruption
- Moderate – Manageable with standard mitigation but may affect communities or workers
- High – Significant, widespread, or long-term impact

**3. Risk Rating = Likelihood × Consequence**

The combined score categorizes each risk as:

- Low – Minor, routine mitigation required
- Moderate – Needs targeted management measures and monitoring
- Substantial/High – Requires enhanced mitigation, monitoring, and oversight (not applicable here since the project is Moderate)

**4. Screening Outcome Informs Management Instruments**

The final ranking guides:

- Which ESSs apply
- Whether ESMP or ESIA is required
- Level of monitoring and supervision
- Mitigation measures included in the ESMP

**5. Participatory and Evidence-Based**

Inputs come from:

- Field observations
- Engineering assessments
- Consultation with communities and authorities
- Review of baseline environmental and social conditions

**6. Dynamic and Iterative**

Risk ranking is updated throughout the project lifecycle as conditions change, new information emerges, or impacts evolve.

Through this combination of technical analysis, regulatory alignment, and community participation, the ESMP provides a realistic, context-appropriate, and operational safeguards framework for the successful rehabilitation of those two clustered water catchment subprojects.

# 2. Sub-project Description

## 2.1 Overview

The two existing water catchments in Shimbiroole and Sirinley villages have experienced progressive deterioration due to prolonged droughts, erratic rainfall patterns, sediment accumulation, embankment degradation, and lack of routine maintenance. Over the past decade, repeated dry seasons and increasingly variable Gu and Deyr rainfall cycles have significantly reduced surface water availability across Baardheere District. As a result, the existing catchments no longer retain sufficient water to sustain agro pastoral households and livestock during extended dry periods.

At present, the Shimbiroole water catchment holds approximately 272 cubic meters, while the Sirinley water catchment holds only about 83 cubic meters, reflecting extremely shallow storage conditions due to long-term siltation and structural deterioration. These volumes are substantially below functional requirements for communities of approximately 45 households (≈270 people) and 945 livestock per village. Furthermore, the two sites are poorly functioning due to heavy siltation, weakened embankments, damaged spillways, and the absence of effective seepage control measures. The lack of perimeter fencing has resulted in uncontrolled access by both people and livestock, contributing to water contamination, sanitation concerns, embankment erosion, and accelerated degradation of the structures.

To restore water security and strengthen resilience to climate variability, the subprojects will rehabilitate and expand each catchment to standardized dimensions of 100 meters by 90 meters by 4 meters depth, increasing storage capacity to approximately 27,000 cubic meters per site per filling cycle. The works will include excavation and reshaping of the pans, installation of HDPE geomembrane lining to reduce seepage losses, construction and reinforcement of spillways and silt traps, installation of solar powered pumping systems and elevated storage tanks, construction of livestock watering troughs to separate human and animal access, perimeter fencing to improve sanitation and safety, and caretaker facilities for improved site management. These integrated interventions are designed to improve water retention efficiency, enhance structural stability, reduce contamination risks, and provide safer and more equitable water access for domestic and livestock use.

The land on which the two subprojects will be implemented is government owned land, as confirmed in Annex 2. Therefore, no land acquisition, physical displacement, or economic displacement is anticipated. The rehabilitation works are confined to existing water catchment footprints and associated auxiliary structures.

In addition to the above, other risks may be outlined as below:

**1. Environmental Risks**

- **Flooding and Hydrological Changes**: Excavation and reshaping activities may temporarily alter runoff patterns and increase localized flooding or sediment movement during construction.
- **Soil Erosion and Sediment Runoff:** Earthworks and embankment construction can destabilize soils, particularly during rainfall events, leading to erosion and sedimentation.
- **Water Contamination**: Without proper management, construction activities may introduce fuel spills, construction waste, or increased turbidity into stored water.
- **Dust and Air Emissions:** Operation of machinery during excavation may generate dust affecting nearby households and livestock.
- **Waste Management:** Improper disposal of excavated materials or construction waste may degrade surrounding land.

**2. Social Risks**

- **Temporary Access Disruptions:** Community members and pastoralists may experience temporary restrictions to water access points during construction.
- **Community Health and Safety**: Open excavations, heavy machinery, and movement of materials pose safety risks to children, livestock, and pedestrians.
- **Sanitation and Public Health Risks:** Prior to rehabilitation, uncontrolled use of open water pans by humans and animals creates contamination risks. During construction, temporary disruption of access may require alternative water arrangements.
- **Labor Influx and SEA SH Risks:** Engagement of contracted workers may increase risks related to gender based violence, exploitation, or social tensions if not properly managed.
- **Conflict Over Water Use:** During rehabilitation or initial filling periods, temporary water shortages may lead to disputes among users if not carefully coordinated.

**3. Technical and Operational Risks**

- **Design and Construction Quality Risks:** Inadequate excavation depth, improper lining installation, or weak embankment compaction could compromise storage efficiency.

- **Solar System Reliability:** Poor installation or inadequate maintenance of solar pumping systems may reduce operational sustainability.
- **O and M Capacity Gaps:** Limited capacity of local water management committees could affect long term maintenance of the rehabilitated infrastructure.
- **Seepage and Structural Failure**: If lining or spillway structures are not properly constructed, water losses or structural instability may persist.

**4. Security and Fragility Risks**

- **Equipment Theft or Vandalism:** Solar panels, pumps, or fencing materials may be vulnerable to theft in fragile settings.
- **Supply Chain Delays:** Transport of geomembrane lining, solar equipment, and construction materials may face logistical challenges due to road conditions or security constraints.

## 2.2 Location of the Sub-project

The two water catchment subprojects are located within Baardheere District, Jubaland State, Somalia. The coordinates below, together with their corresponding geo mapped photographs, confirm the precise location of each subproject within its respective village and delineate the main water catchment areas. The geo referenced photos were captured during field assessments and form part of the safeguard's documentation for verification and monitoring purposes.

The coordinates of auxiliary structures, including the water tank, solar panels, silt trap, pump house, livestock watering troughs, fencing, and associated facilities, are provided in the engineering drawings and sectional layouts included in this ESMP (see Annex 3: Drawings and Sections Layout). These detailed layouts ensure traceability of all infrastructure components within the approved government owned land boundaries.

*Table 1: Water Catchment Sites and GPS Coordinates*

| Water-Catchment Name | GPS Coordinate | Geo-Map photos |
|---|---|---|
| Shimbiroole | 2°18'30.2979" N,42°16'56.8584" E |   |

| | | |
|---|---|---|
| Sirinley | 42°16'50.2011" E, 2°23'12.5879" N. |   |

## 2.3 Scope of Works

The two water catchment rehabilitation subprojects involve the restoration and upgrading of existing community-based surface water storage systems supported by solar powered pumping schemes and associated auxiliary infrastructure, with the objective of restoring reliable water storage, improving water quality management, and strengthening dry season water availability for agro pastoral communities in Baardheere District.

The scope of works comprises integrated civil, hydraulic, structural, mechanical, and electrical activities designed to enhance storage capacity, reduce seepage losses, improve operational control, and increase resilience to prolonged droughts and rainfall variability. The principal activities include:

- Site preparation and earthworks, including site clearance, surveying and setting out, large scale excavation and reshaping of existing water pans to standardized dimensions of 100 meters by 90 meters by 4 meters depth, embankment formation and compaction, slope stabilization, and reinstatement works within the catchment footprints.
- Installation of HDPE geomembrane lining within each catchment basin to reduce seepage losses, improve water retention efficiency, and enhance structural durability, including preparation of subgrade, joint welding, anchoring, and protective arrangements.
- Construction and rehabilitation of auxiliary hydraulic structures, including reinforced spillways, overflow channels, silt traps, rubble stone masonry works, rip rap stone pitching, embankment protection measures, intake channels, and erosion control features to improve flow regulation, reduce sediment accumulation, and protect against overtopping during peak rainfall events.
- Supply, installation, testing, and commissioning of solar powered pumping systems at each site, including photovoltaic panels, mounting structures, inverters, cabling, lightning protection systems, grounding arrangements, control devices, and centrifugal pumps designed to abstract stored water and transfer it to elevated storage tanks while minimizing operational costs and greenhouse gas emissions.
- Construction of reinforced concrete pump chambers and protective enclosures, including excavation, hardcore filling, concrete slabs, masonry walls, roofing systems, doors, windows, internal and external finishes, and associated fittings, designed to securely house pumping

and electrical equipment and protect them from environmental exposure and unauthorized access.

- Construction of elevated reinforced platforms and installation of 20,000-liter plastic storage tanks at each site, including foundation works, reinforced concrete slabs, masonry support walls, plastering, and fittings to facilitate controlled distribution of water.
- Installation of distribution pipelines, valves, fittings, and connections to supply water from the elevated tanks to livestock watering troughs and tap stands, including non return valves, gate valves, and associated appurtenances to ensure controlled flow and system protection.
- Construction of livestock watering troughs for cattle and shoats, including excavation, reinforced concrete foundations, masonry works, plastering, drainage arrangements, and stone pitched ramps, designed to separate livestock access from the main water storage area and improve sanitation and water quality.
- Installation of chain link perimeter fencing around each catchment compound, including steel posts, reinforced concrete bases, gates, barbed wire strands, and protective measures to control access, improve sanitation, prevent uncontrolled livestock entry, and enhance asset security.
- Construction of caretaker rooms, tap stands, soak pits, and sanitation facilities including external toilets to support site management, improve hygiene conditions, and facilitate long term operation and maintenance of the rehabilitated infrastructure.
- Installation of project signboards displaying project identification details, implementing partners, and donor information to ensure transparency and community awareness.

Collectively, these works will restore and significantly expand water storage capacity from severely reduced volumes to approximately 27,000 cubic meters per site per filling cycle, improve water quality management through separation of human and livestock access, strengthen resilience to prolonged droughts and rainfall variability, and enhance sustainable water service delivery for beneficiary agro pastoral households Baardheere District.

## 2.4 Duration and Workforce

The two water catchment subprojects are expected to be completed within five to seven months, depending on rainfall patterns, seasonal accessibility, material delivery timelines, and site logistics across the two locations. Given the scale of excavation works, geomembrane lining installation, construction of auxiliary structures, and installation of solar powered pumping systems, implementation may be phased to ensure quality control and environmental safeguards compliance.

Construction activities will require an estimated workforce of approximately 75 to 90 personnel distributed across the two sites, including about 25 skilled workers such as technicians, heavy machine operators, welders, electricians, solar installers, and masons, together with approximately 50 to 65 unskilled laborers recruited by gender to support excavation, embankment compaction, geomembrane placement, masonry works, fencing installation, trough construction, and general site activities. Daily construction activities will typically run from 8:00 a.m. to 5:00 p.m., six days per week, allowing adequate time for supervision, environmental monitoring, and adherence to occupational health and safety protocols.

To strengthen community ownership and support livelihood opportunities in drought affected agro pastoral areas, the contractor will prioritize hiring workers from Shimbiroole and Sirinley and surrounding villages. Women, youth, and vulnerable households will be considered for suitable non-technical roles in accordance with contractual bid clauses and the project's inclusion principles. Throughout implementation, the contractor will comply with the project's Labor Management

Procedures, maintain a functional Worker Grievance Mechanism, and ensure safe, fair, and non-discriminatory working conditions consistent with national labor legislation and World Bank ESS2 requirements.

**2.5 Machinery and Materials**

- **Machinery:** Excavators, bulldozers, tipper trucks, wheel loaders, backhoe loaders, graders, compactors, concrete mixers, vibratory plate compactors, welding machines for geomembrane jointing, lifting equipment for tank placement, and installation tools for solar mounting structures and pumping systems.
- **Materials:** HDPE geomembrane lining sheets, cement, aggregates, hardcore, quarry dust, reinforcement steel, masonry blocks, rubble stones, concrete materials for silt traps, spillways, pump chambers, tank platforms, troughs, fencing posts and chain link mesh, gates, solar photovoltaic panels, inverters, electrical cables, distribution pipes, valves, fittings, and plastic storage tanks. All materials will be sourced from licensed and approved suppliers to ensure quality and durability.
- **Fuel and Lubricants:** Procured from authorized vendors and stored in properly bunded, secure areas with spill containment measures in compliance with occupational health and environmental management requirements. Refueling and maintenance activities will be conducted in designated areas to minimize contamination risks.
- **Water Use:** Water required for construction activities, including concrete mixing, curing, compaction, and dust suppression, will be sourced from approved local boreholes or municipal supplies. Water abstraction from the rehabilitated catchments will not occur during construction to avoid affecting existing community water access.
- **Waste Handling:** Excavated soil will be reused on site for embankment shaping and backfilling where suitable. Surplus non-hazardous construction waste will be transported to designated disposal sites approved by local authorities. Hazardous wastes such as used oils, oily rags, filters, and chemical residues will be managed under a site-specific Waste Management Plan and disposed of through licensed waste contractors in accordance with environmental safeguards requirements.

## 2.6 Project Alternatives

The analysis of project alternatives examined several technical and design options to identify the most appropriate, environmentally sound, and socially supported solution for rehabilitating the two water catchment subprojects in Baardheere District. The options reviewed included maintaining the existing shallow and silted catchments without expansion, partial desilting without structural lining, using unlined earth embankments only, relying on diesel powered pumping systems instead of solar technology, and continuing open access use without fencing or livestock separation. Each option was assessed in terms of its ability to improve water storage efficiency, reduce seepage losses, enhance water quality, strengthen drought resilience, and ensure equitable and sustainable access for both domestic users and livestock.

During the assessment process, extensive consultations were held with the Jubaland Ministry of Agriculture and Irrigation, Baardheere District authorities, and community representatives from the two villages. Stakeholders emphasized that previous shallow excavations and unlined embankments were insufficient to withstand prolonged droughts and increasing rainfall variability. Communities expressed strong preference for full excavation to standardized dimensions, installation of HDPE geomembrane lining to reduce seepage losses, construction of reinforced spillways and silt traps to manage sedimentation, installation of solar powered pumping systems, construction of elevated

storage tanks, and installation of fencing to improve sanitation and asset protection. These consultations confirmed that maintaining the existing condition would not adequately meet dry season water demand or protect water quality. The detailed records of these discussions are provided in the annexed consultation minutes.

Based on the technical assessments and community and government feedback, the selected design includes deepening and lining each catchment to increase storage capacity to approximately 27,000 cubic meters per filling cycle, combined with solar powered abstraction, controlled distribution infrastructure, livestock watering troughs, and perimeter fencing. This integrated approach reduces seepage, improves water retention, enhances water quality management, lowers operational costs compared to diesel alternatives, and strengthens resilience to prolonged drought conditions. The selected alternative therefore reflects the preferred and jointly agreed solution to establish reliable, climate resilient, and socially inclusive water storage systems across the two subproject sites.

*Table 2: With Project and Without Project Scenario*

| Aspect | With Project Scenario | Without Project Scenario |
|---|---|---|
| Water Storage Capacity | Storage increased to approximately 27,000 $m^3$ per site per filling cycle with reduced seepage losses. | Limited effective storage between 272 $m^3$ and 83 $m^3$ due to siltation and shallow depth. |
| Water Availability | Improved yearly-round availability for approximately 45 households ≈ 270 people, and 945 livestock per site. | Severe dry season shortages; reliance on distant or unsafe water sources. |
| Water Quality & Sanitation | Fencing, trough separation, and controlled access improve hygiene and reduce contamination risks. | Open access by people and livestock leads to contamination and sanitation concerns. |
| Energy Source | Solar powered pumping reduces fuel costs and greenhouse gas emissions. | Continued reliance on manual abstraction or diesel pumps where available. |
| Livelihoods & Employment | Temporary construction employment and strengthened local management capacity. | No new employment; continued vulnerability of agro-pastoral livelihoods. |
| Climate Resilience | Improved resilience to prolonged droughts and rainfall variability through enhanced storage and reduced losses. | Increasing vulnerability to drought, water conflicts, and livelihood decline. |
| Infrastructure Sustainability | Engineered embankments, spillways, and lining enhance durability and long-term performance. | Continued structural degradation, embankment failure, and sedimentation. |

This format is aligned with World Bank ESS1 good practice and visually demonstrates the benefits versus risks for decision-making.

## 2.7 Access and Logistics

Access to the two subproject areas will primarily rely on existing feeder roads that serve as the main transportation routes connecting Shimbiroole and Sirinley villages to Baardheere District. Although sections of these feeder roads become muddy and partially degraded during rainy seasons, they remain passable for vehicles and are not expected to significantly delay the transport of materials, machinery, or workforce. From the feeder road, access to the water catchment sites, pump houses,

solar panel locations, elevated tanks, livestock troughs, and associated auxiliary structures is through existing rural tracks used by community members and livestock.

Construction activities will involve the movement of excavators, bulldozers, tipper trucks, geomembrane transport vehicles, concrete materials, fencing materials, and solar equipment along these routes. The contractor will coordinate closely with village leaders and community representatives to minimize disturbance to grazing areas, seasonal farms, and daily community movement. Temporary storage areas for geomembrane sheets, pipes, valves, solar components, cement, and reinforcement steel will be identified in consultation with the community to ensure safety, security, and avoidance of interference with livelihood activities.

To safeguard community health and safety, appropriate signage, warning notices, and physical barriers will be installed where excavation, embankment formation, or machinery operations are ongoing. Alternative footpaths will be maintained where access routes intersect with construction zones. These access and logistics arrangements will comply with occupational health and safety requirements and the provisions of World Bank ESS4 on Community Health and Safety.

## 2.8 Project Beneficiaries

The two water catchment subprojects will directly benefit agro pastoral households in Shimbiroole and Sirinley villages and their surrounding settlements. Each catchment is designed to serve approximately 45 households, representing about 270 people per village, together with an estimated 945 livestock per site under normal use conditions. The current storage capacities, approximately 272 cubic meters in Shimbiroole and about 83 cubic meters in Sirinley are significantly below functional requirements, resulting in early seasonal drying and reduced water availability during prolonged dry periods.  have significantly constrained water availability during prolonged dry seasons, increasing vulnerability to drought and forcing households to travel long distances in search of alternative water sources.

With the rehabilitation and expansion of each catchment to approximately 27,000 cubic meters per filling cycle, combined with solar powered abstraction, elevated storage tanks, controlled distribution systems, livestock troughs, and perimeter fencing, the subprojects will substantially improve dry season water security. The improved storage capacity and reduced seepage losses will allow each catchment, when refilled twice annually under normal rainfall patterns, to meet domestic and livestock water demand in accordance with Sphere minimum standards, thereby strengthening climate resilience and reducing water related stress.

In addition to improved water availability, the project will generate short term employment opportunities during construction and provide long term benefits through improved water management arrangements and strengthened community oversight of operation and maintenance. By restoring functional and protected water infrastructure, the subprojects are expected to enhance public health conditions, support livestock productivity, and reinforce livelihood stability in drought affected agro-pastoral communities.

# 3. Environmental and Social Baseline

## 3.1Environmental Baseline

- **Living Environment (Flora & Fauna):** The Shimbiroole water catchment located in Shimbiroole Village and the Sirinley water catchment located in Sirinley Village are both situated in Bardheere District, which features semi-arid pastoral rangelands in its upland areas and

natural plains, with mixed agro-pastoral systems along the Juba River supported by irrigated agriculture. The two subproject areas are located within a heavily modified agricultural landscape where natural vegetation has largely been replaced by cultivated crops and managed irrigation systems. Residual natural vegetation is limited to scattered shrubs, grasses, and occasional riparian trees along sections of the riverbank. Common fauna in the area includes small mammals, reptiles, birds, and livestock associated with pastoral and agro-pastoral livelihoods. Wildlife diversity is relatively low due to long-term human settlement and agricultural development. No protected areas, critical habitats, or legally designated conservation sites are located within or adjacent to the project footprints. Vegetation clearance required for construction activities will be minimal and confined to narrow pipeline corridors, pump station sites, and tank locations. Given the already disturbed nature of the landscape, impacts on biodiversity are expected to be limited and localized.

- **Non-Living Environment (Soils, Climate and Topography):** The two sub-project areas lie within a hot semi-arid climate characterized by high temperatures and low to moderate rainfall. The climate follows a bimodal pattern, with the Gu season providing the primary rainfall and the Deyr season contributing secondary precipitation. Extended dry periods between rainy seasons are common, making irrigation essential for continuous crop production. Average temperatures are high throughout the year, frequently exceeding 30°C, with peak temperatures occurring during the dry months. Evapotranspiration rates are correspondingly high, increasing crop water requirements and intensifying dependence on reliable irrigation systems. Climate variability has increased in recent decades, with more frequent droughts punctuated by episodic intense rainfall events that can cause localized flooding. These conditions pose risks to agricultural productivity and infrastructure reliability. The proposed rehabilitation of irrigation systems is therefore closely linked to climate adaptation by improving water management efficiency and reducing vulnerability to rainfall fluctuations.

  Soils in the project zone consist predominantly of alluvial sandy loams and silty clay loams formed through long-term sediment deposition from seasonal flooding. These soils are generally fertile and well suited for irrigated agriculture, supporting crops such as bananas, maize, vegetables, and fruit trees. However, they are susceptible to erosion when exposed, particularly during intense rainfall events or when disturbed by excavation activities. Soil compaction can also occur if heavy machinery operates on saturated ground.

  Ambient air quality in the area is generally good due to the absence of industrial activities. Dust levels increase during the dry seasons as a result of wind erosion, vehicular movement on unpaved roads, and agricultural operations. During construction, air quality impacts will mainly relate to temporary dust emissions from excavation, pipe handling, and vehicle movement along unpaved rural tracks. Noise levels in the area are generally low, with occasional increases associated with diesel pumps, generators, and transport vehicles. Noise generation from construction machinery is expected but will remain localized and limited to daytime working hours. These short-term impacts will be mitigated through standard Contractor Environmental and Social Management Plan (C-ESMP) measures such as water spraying, proper equipment maintenance, and avoiding unnecessary engine idling.

  Groundwater conditions are influenced by proximity to the river and irrigation return flows. The water table is generally shallow in areas close to the river but becomes deeper inland.

Groundwater is used primarily for domestic purposes through shallow wells, while large-scale irrigation relies on surface water pumping. Construction activities associated with the rehabilitation works are not expected to significantly alter groundwater regimes due to the limited depth and footprint of excavations.

- **Waste Management:** Baardheere District and it is surrounding villages such as Shimbiroole and Sirinley have limited capacity for systematic solid waste management, and open dumping is common in rural villages. Construction waste, including excavated soil, damaged pipes, timber, packaging materials, and concrete debris, must therefore be handled responsibly under the C-ESMP. The contractor will dispose of all waste only at designated municipal or project-approved sites and manage hazardous waste—such as used oils—according to environmental guidelines.

- **Cultural Heritage:** There are no known archaeological or culturally important sites along the pipeline route, solar site, or tank location. Nevertheless, a **Chance Finds Procedure** will be applied in case any unexpected cultural or historical materials are encountered during excavation.
- **Hydrology and Water Resources:** The two subproject areas in Shimbiroole and Sirinley villages are located in semi-arid pastoral zones of Baardheere District where water availability is almost entirely dependent on seasonal rainfall during the Gu and Deyr seasons. Surface runoff is harvested in shallow community water catchments, which serve as the primary source of domestic and livestock water during dry periods. Unlike riverine systems, these villages do not have access to perennial surface water bodies, making them highly vulnerable to rainfall variability and prolonged drought.

  In years of adequate rainfall, catchments may fill once or twice annually; however, recurrent drought cycles and erratic precipitation patterns have reduced recharge reliability. When catchments dry out, communities rely on small rehabilitated berkeds, which typically deplete before the onset of the next rainy season. During severe drought years, vulnerable households and livestock face acute shortages, prompting emergency support from local non-profit foundations and humanitarian actors, while commercial water vendors supply water to households that can afford to pay, creating inequities in access.

  Water quality in existing open catchments is influenced by sediment inflow, high evaporation rates, and unrestricted livestock access. Elevated Total Suspended Solids during runoff events and increased Total Dissolved Solids resulting from evaporation concentration are common concerns in semi-arid environments. Groundwater sources in the broader district may exhibit salinity challenges, limiting their suitability for sustained domestic use without treatment. In line with World Bank Environmental and Social Framework requirements, particularly ESS3 on Resource Efficiency and Pollution Prevention, the proposed rehabilitation incorporates silt traps, improved embankments, geomembrane lining to reduce seepage, controlled abstraction through solar powered pumping, and separation of livestock watering troughs from the main storage area to reduce contamination risks and improve overall water quality management.

  Overall, the interventions are designed to enhance storage reliability, improve water quality safeguards, and strengthen climate resilience consistent with the objectives of the Somalia Food Systems Resilience Project.

- **Land Use and Land Cover:** Land use in those areas comprises a of small cultivated fields, main grazing lands, sparse settlement, and shrubland. Agricultural plots tend to be small relative to the grazing area, with much open land currently utilized for livestock grazing. Settlement clusters are concentrated along the main feather road, reflecting infrastructure-linked habitation patterns.

- Land degradation trends include localized soil erosion near informal tracks and fallow plots, while deforestation pressures stem mainly from fuelwood extraction and charcoal production rather than formal forest clearing. Invasive species such as *Prosopis juliflora* dominate the degraded scrubland along the pipeline corridor, reducing native biodiversity and ecological value. There are no widespread aquatic invasive weeds documented locally, although seasonal vegetative mats may form in slow moving tributaries following the rainy seasons.

- **Air Quality and Climate Stressors:** Baseline air quality monitoring data specific to Baardheere District are limited; however, ambient conditions in rural Gedo region typically reflect low industrial emissions and localized particulate generation from dust mobilization on unpaved tracks and wind-blown soil, particularly during prolonged dry spells. Particulate Matter (PM10/PM2.5) levels are influenced by surface dryness and agricultural trafficking, though formal monitoring stations are generally absent in rural districts.

  The region's climate exhibits semi-arid characteristics with rising temperature trends noted across southern Somalia over recent decades, contributing to increased evapotranspiration stress on water resources and vegetation. Climate variability has manifested in alternating periods of drought and intense rainfall, with prolonged dry seasons reducing surface water availability and repeated flood risks during peak rainy events.

- **Noise and Vibration Baseline:** Existing ambient noise levels in rural areas are generally low, dominated by natural sounds and intermittent rural traffic along the Baardheere District – Villages. There are sensitive receptors such as small residential clusters, local schools, and health posts within proximity of the pipeline corridor, though their exposure to elevated noise events is currently limited. Noise impacts during construction will be temporary and localized.

- **Surface and Groundwater Quality:** Baseline surface water quality of the Jubba River includes naturally variable parameters influenced by upstream sediment transport, seasonal runoff, and limited pollution sources relative to urban rivers. Typical irrigation-relevant parameters such as pH ranges, turbidity, and salinity vary by season, with turbidity increasing after high flow events. Groundwater quality in the region, as documented in broader Somali assessments, can display elevated salinity levels in wells and boreholes, with many points exceeding recommended thresholds without treatment. Biological contamination sources may stem from livestock and unmanaged waste in rural settlements.

- **Geology and Seismic Risk:** Subsurface conditions along the catchment corridors are typical of Jubba Basin alluvial sediments, with alternating layers of sandy-loam and clay-loam soils that support crop production but can be prone to compaction, water-holding capacity and erosion when disturbed. No major active fault lines are mapped in the immediate vicinity, and seismic activity in Gedo region is generally low; however, regional tectonic forces in the Horn of Africa produce occasional low-magnitude ground movements.

- **Sensitive or Protected Areas:** No internationally recognized protected areas, wetlands of international importance (Ramsar sites), or formally designated biodiversity hotspots are located adjacent to the subproject alignments. The nearest ecologically significant area is the Jubba River corridor itself, which supports riparian habitats, but no specific conservation designations apply locally.

- **Climate Change Vulnerability:** The project areas are exposed to climate hazards including heatwaves, prolonged droughts, and episodic-rare flood events. Increased climate variability is projected in East Africa, with more frequent drought and heightened potential for extreme rainfall and floods in major river basins such as the Jubba. These trends reduce water security and increase stress on agricultural systems. Ecosystem adaptive capacity in the semi-arid landscape is constrained by limited vegetative cover and reliance on riverine and groundwater resources.

- **Visual and Landscape Characteristics:** The landscape of these two subprojects and surrounding grazing as well as farmlands is characterized by open agricultural plains, scattered shrubland, and the linear form of the Jubba River, contributing to a predominantly rural visual setting. While there are cultural and livelihood values attached to the river corridor and farmland viewsheds, the installation of project infrastructure such as solar arrays and an elevated tank will introduce new visual elements. These are typical in rural development contexts and will be considered in the ESMP to minimize visual intrusion and maintain landscape character.

## 3.2 Social Baseline

- **Socio-Economic Context**: Baardheere town is a major settlement in Gedo Region with surrounding riverine villages that rely on agriculture, livestock, and small trade. The district economy and movement of goods have been significantly disrupted by the collapse of the main vehicular bridge over the Juba River following heavy flood events, reducing connectivity, increasing transport costs, and constraining local commerce and labor opportunities. This disruption has compounded the economic and livelihood pressures already linked to recurrent flooding and climate shocks.

- **Livelihoods**: Livelihood systems in the subproject areas are predominantly agro-pastoral, combining irrigated farming along the Juba floodplain with livestock rearing and seasonal grazing. Recurrent flood impacts and sediment deposition have reduced accessible cultivable land in some riverine sections, contributing to smaller farmed plots and increased livelihood fragility. In the current drought context, pastoral and agro-pastoral households have faced pasture and water shortages, contributing to increased mobility and migration of livestock-keeping households toward better conditions or service areas.

- **Administration and Governance:** The subproject sites fall under Bardere District Administration and Jubaland State structures, with sector roles shared across relevant ministries and local authorities. Community governance commonly includes elders, religious leaders, and local committees involved in dispute resolution and coordination of shared resources, including water management and flood response actions. Coordination with these

structures is essential for access management, labor recruitment, grievance handling, and sustained O&M arrangements for embankments and auxiliary structures.

- **Gender Considerations and GBV Risks:** Rural riverine communities in southern Somalia often have strong gender norms affecting participation and access to economic opportunities. Construction activities may increase SEA/SH exposure risks if not actively managed. The project will apply the GBV/SEA/SH risk management requirements within the ESF framework, including contractor Codes of Conduct, worker induction, safe recruitment practices, and confidential reporting channels under the GM.

- **Local Community Composition:** Communities in Baardheere's riverine corridor typically comprise long-term resident farming and pastoral groups, alongside households displaced by drought, flooding, or insecurity in the wider south-central regions. Social organization and customary decision-making influence local leadership, land use arrangements, and community engagement processes.

- **Vulnerable and Minority Groups:** Vulnerable groups may include drought-affected households, female-headed households, persons with disabilities, poor agro-pastoral households with reduced livestock holdings, and displaced families living in informal arrangements. These groups may face barriers to participation and benefit-sharing unless specifically targeted through inclusive consultation and fair labor recruitment practices.

- **Access to Water and Electricity:** Domestic water access in Baardheere is strongly linked to the Juba River. Available assessments indicate that the main water source is the river and that private operators abstract and distribute treated/filtered water to users in town and nearby areas. Electricity access is largely dependent on private supply arrangements typical of Somali towns, with limited coverage in peripheral villages and costs that constrain poor households.

- **Security Context:** Baardheere District is located in a fragile operating environment typical of south-central Somalia, where localized security incidents may intermittently affect movement, logistics, and access to project sites. The district hosts AUSOM security presence at the Baardheere airstrip/airport, with Ethiopian forces reported to be stationed there. These forces also conduct periodic movements into Baardheere town when there are perceived security concerns or emerging threats, which may result in temporary checkpoints, heightened security measures, or short-term mobility restrictions for people and vehicles. Construction implementation will therefore require close coordination with the District Administration, local security authorities, and community leaders to ensure safe access, timely movement of materials and personnel, and clear communication on any security-related constraints. The contractor will apply site and worker security measures consistent with the project's Security Management Framework, including controlled site access, incident reporting procedures, and adherence to agreed movement protocols, in line with World Bank ESS4 (Community Health and Safety).
- **Health and Education Services:** Access to healthcare services in rural Baardheere is generally limited to basic primary care points and referral to town facilities where available. Service availability and quality can be further strained during flood or drought emergencies due to displacement, waterborne disease risks, and reduced access routes. Education services are

typically limited in rural villages, with stronger coverage in town centers; climate shocks and livelihood stress can reduce school attendance, particularly for girls.

- **Economic Indicators:** Household incomes are largely tied to farm production, livestock, casual labor, and small trade. Economic activity and market connectivity have been adversely affected by infrastructure disruption (including the bridge collapse), while recurrent flooding and sedimentation have constrained agricultural productivity in some riverine areas. Drought conditions reported nationally have also reduced livestock productivity and weakened purchasing power in affected regions.

- **Social Infrastructure:** Baardheere's social infrastructure and movement rely on key transport links across the Juba River. Damage or failure of critical infrastructure (such as the main bridge) has reduced mobility, increased costs, and limited access to services and markets for surrounding communities. Rural feeder tracks may become difficult during rains, while drought conditions can reduce water access points and increase travel burden.

- **Cultural and Religious Practices:** Social life is strongly shaped by Islamic practices and customary norms, with religious leaders and elders playing central roles in community mobilization, information sharing, and dispute resolution. These structures will be engaged for consultation, information disclosure, and community safety messaging during implementation.

- **Conflict and Social Cohesion:** Resource pressures—especially related to water, grazing, and access to productive land—can increase during drought periods and after flood events. Community dispute resolution mechanisms typically rely on elders and customary arrangements. The project's consultation processes and GM will help manage concerns related to construction impacts, access restrictions, and perceived inequities.

- **Migration and Mobility:** Seasonal and shock-driven mobility is common in Gedo, particularly among pastoral and agro-pastoral households. Recent drought reporting highlights increased displacement and movement linked to water scarcity, pasture depletion, and livestock stress, which can temporarily change village population profiles and service demands.

- **Food Security and Nutrition:** Food security conditions in Somalia have worsened under recurrent rainfall deficits and drought stress, with southern regions including Gedo affected by reduced crop production, livestock losses, and water scarcity. These conditions increase vulnerability among poor agro-pastoral households and can heighten reliance on humanitarian support during peak stress periods.

- **Access to Finance:** Formal finance access in rural districts is limited. Households commonly rely on informal credit, mobile money, shopkeeper credit, and family support. Drought and flood shocks can increase debt burdens and reduce savings and resilience capacity.

- **Community Organizations and Social Networks:** Community systems include elders, women's groups, youth groups, and informal livelihood networks. During flood and drought shocks, community coping often relies on social solidarity and external assistance

mechanisms. Engagement with these groups supports inclusive consultation and effective risk communication.

- **Disaster Risk and Resilience:** Baardheere District faces multi-hazard exposure, particularly river flooding along the Juba and severe drought conditions. Flood monitoring products identify persistent breakage risks along the Juba system, while recent humanitarian reporting confirms escalating drought stress and displacement. Strengthening embankments and auxiliary drainage controls is therefore directly linked to district-level resilience building and reduced recurrent losses.

# 4. Legal and Regulatory Framework

The relevant national environmental and social legislation, as well as the WB Environmental and Social Framework (ESF) under which the (S-FSRP) is financed will guide the implementation of this Environmental and Social Management Plan (ESMP) for the Subproject. Together, these frameworks ensure that project activities are carried out in a manner that safeguards the environment, promotes social inclusion, and upholds the principles of sustainability and accountability.

## 4.1 National Legal and Institutional Framework

**The provisional Constitution of Somalia:**

Article 10 – Human Dignity: Human dignity is the basis for all human rights. It is inviolable and must be protected by all. The State power must not be exercised in a manner that violates human dignity.

Article 11 – Equality: All citizens, regardless of sex, religion, social or economic status, political opinion, clan, disability, occupation, birth or dialect shall have equal rights and duties before the law. The State must not discriminate against any person on the basis of age, race, color, tribe, ethnicity, culture, dialect, gender, birth, disability, religion, political opinion, occupation, or wealth. Thus, all laws, or political and administrative actions that are designed to achieve full equality for individuals or groups who are disadvantaged, or have suffered from discrimination in the past, shall be deemed to be not discriminatory.

Article 24 – Labor Relations: Every person has the right to fair labor relations. All workers, particularly women, have a special right of protection from sexual abuse, segregation and discrimination in the workplace and, every labor law and practice shall comply with gender equality in the workplace.

Article 32 – Right of Access to Information: Every person has the right of access to information held by the state, and the right of access to any information that is held by another person which is required for the exercise or protection of any other just right.

Article 27 (1 & 5) – Economic and social rights- right to clean portable water. Women, aged, disabled, and minorities who have suffered discrimination to be supported to realize their full potential.

Article 43 Land: land is recognized as primary resource and the basis of the people's livelihood; b) land shall be held, used and managed in an equitable, efficient, productive and sustainable manner;

c) the FGS shall develop a national land policy, which shall be subject to constant review, d) no permit may be granted regarding the permanent use of any portion of the land, sea or air of the territory of the Federal Republic of Somalia, e) the FGS, in consultation with the FMS and other stakeholders, shall regulate land policy, and land control and use measures.

Article 45 (—Environment‖) states that the government shall give priority to the protection, conservation, and preservation of the environment against anything that may cause harm to natural biodiversity and the ecosystem. Furthermore, all people have a duty to safeguards and enhance the environment and participate in the development, execution, management, conservation and protection of the natural resources and the environment. The FGS and the governments of the FMS affected by environmental damage shall take urgent measures to clean up hazardous waste dumped on the land or in the waters of the FGS; take necessary measures to reverse desertification, deforestation and environmental degradation, and to conserve the environment and prevent activities that damage the natural resources and the environment of the nation, among other measures.

## 4.2. Relevant National legislation

Environmental Protection and Management Act (April 2024), National Health Professionals Council Act (LR. 31/2020) and Law No. 9 of 26 January 1989; Draft National Environmental and Social Impact Assessment Regulations

Environmental Protection and Management Act, 2024: The act guarantees the right to a clean, safe and healthy environment, provides requirements for waste management including hazardous wastes. The act requires the application of the polluter pay and precautionary principle in environment management. The construction project is required to adhere to all the relevant requirements prescribed by the act.

Environmental and Social Impact Assessment and Audit Regulations (ESIA) 2024: Part III, regulations 13, 16 and 17, guides public participation, collection and incorporation of views from the public.

the Somali Labour Code (Law No. 36 of 2024), the Public Health legislation, Somalia National Gender Policy (2016) includes strategies to eradicate harmful traditional practices such as female genital mutilation/cutting (FGM/C) and child marriage and to improve services for the management of GBV/SEAH cases.

Institutionally, environmental and social management responsibilities are shared among several entities. The Federal Ministry of Agriculture and Irrigation (MoAI) provides overall project oversight, while FAO Somalia supervises day-to-day implementation and safeguards compliance, and the State MoAI facilitates local coordination, security, and grievance management. In parallel, the Federal Ministry of Environment and Climate Change (MoECC) serves as the national authority for environmental and social regulation in accordance with the Environmental Protection and Management Act (2024). Collectively, these institutions ensure compliance with Somalia's environmental and social laws throughout the project cycle.

## 4.3 The World Bank Environmental and Social Framework (ESF)

As the Subprojects are risk-rated as having a "Moderate" environmental and social risk, a full Environmental Impact Assessment (EIA) is not required. This site-specific **Environmental and Social**

**Management Plan (ESMP)** will serve as the primary instrument for identifying, assessing, and managing all potential risks and impacts.

In the absence of specific Somali national standards for air quality, water quality, or noise, or where such standards are less stringent, the project will adhere to internationally recognized benchmarks, including the WB ESF, **World Bank Group's General EHS Guidelines** and, where applicable, **World Health Organization (WHO)** standards. These standards will guide all management and monitoring activities throughout the project lifecycle.

**World Bank Environmental and Social Framework (ESF):** The following Environmental and Social Standards (ESSs) are relevant to this project.

*Table 3: Summary of Potential Environmental and Social Risks*

| ESS | Specific Relevancy (Risks Only) |
|---|---|
| **ESS1:** Assessment and Management of Environmental and Social Risks and Impacts | - Addresses the risk of soil erosion, embankment instability, and slope failure during deep excavation and reshaping of water catchments.<br>- Addresses the risk of hydrological disruptions such as excessive runoff concentration, spillway overtopping, sedimentation, and inadequate drainage control.<br>- Addresses the risk of temporary interruption of water access for human and livestock use during excavation and lining works.<br>- Addresses the risk of seepage losses or structural failure if geomembrane lining and embankment compaction are improperly executed.<br>- Addresses the risk of cumulative impacts arising from recurrent drought conditions combined with increased water demand.<br>- Addresses the risk of water-use tensions among households and pastoral groups during reduced storage periods or construction phase restrictions.<br>- Addresses the risk of contamination due to uncontrolled livestock access in the absence of fencing or separation measures.<br>- Addresses the risk of weak ESMP and Contractor ESMP implementation at multiple sites simultaneously.<br>- Addresses the risk of poor coordination between the Contractor, FAO, NPCU, and State PIU leading to unmanaged environmental and social impacts.<br>- Addresses the risk of inadequate monitoring of water quality parameters such as turbidity and Total Dissolved Solids following rehabilitation.<br>- Addresses the risk of exclusion of vulnerable households, IDPs, women, and minority groups from project benefits and consultations. |

| | |
|---|---|
| | - Addresses the risk of failing to establish and operationalize a functional General Grievance Mechanism and confidential SEA/SH reporting mechanism. |
| **ESS2:** Labor and Working Conditions | - Addresses the risk of child labor or forced labor due to weak verification of worker age or informal recruitment practices in rural settings.<br>- Addresses the risk of unfair or non-transparent recruitment, including exclusion of women, youth, and vulnerable households from employment opportunities.<br>- Addresses the risk of delayed payment of wages and related labor grievances.<br>- Addresses the risk of workers having no written contracts or unclear employment terms.<br>- Addresses the risk of injuries from heavy machinery, deep excavation works, embankment collapse, and geomembrane installation activities.<br>- Addresses the risk of exposure to excessive heat, dehydration, and heat stress in semi-arid climatic conditions.<br>- Addresses the risk of inadequate provision or inconsistent use of Personal Protective Equipment.<br>- Addresses the risk of unsafe work at heights during installation of elevated water tanks and solar mounting structures.<br>- Addresses the risk of poor site organization, unsafe material storage, and hazardous internal access routes.<br>- Addresses the risk of weak implementation of the Labor Management Procedures and absence of a confidential Worker Grievance Mechanism.<br>- Addresses the risk of inadequate Occupational Health and Safety incident reporting, limited root cause analysis, and poor record keeping. |
| **ESS3:** Resource Efficiency and Pollution Prevention and Management | - Addresses the risk of dust emissions from excavation, vehicle movement, and dry soil surfaces.<br>- Addresses the risk of noise and vibration affecting nearby households and farm users, even if impacts are minor in a rural agropastoral setting.<br>- Addresses the risk of air emissions (smoke, diesel fumes) from poorly maintained machinery, even if overall impacts are limited.<br>- Addresses the risk of fuel and oil spills contaminating soil and canal water.<br>- Addresses the risk of increased turbidity and sediment loads in irrigation canals and drainage channels.<br>- Addresses the risk of accumulation of construction debris and vegetation waste along the catchment inlet canal.<br>- Addresses the risk of inadequate waste segregation, including hazardous versus non-hazardous materials.<br>- Addresses the risk of waste disposal in unauthorized locations and community exposure to unsafe waste piles.<br>- Addresses the risk of erosion and sedimentation affecting w/catchment systems. |

| | |
|---|---|
| **ESS4:** Community Health, Safety, and Security | - Addresses the risk of community members being exposed to construction hazards such as heavy machinery, excavation pits, embankment works, and material transport vehicles.<br>- Addresses the risk of unsafe access around deepened catchments, silt traps, spillways, pump houses, elevated tanks, and solar installations.<br>- Addresses the risk to children and livestock moving near open excavations or partially completed embankments.<br>- Addresses the risk of drowning in deepened catchments if access is not properly controlled during and after construction.<br>- Addresses the risk of contamination of stored water due to uncontrolled livestock access prior to installation of fencing and trough separation systems.<br>- Addresses the risk of increased traffic along feeder roads leading to accidents involving pedestrians, livestock, and motorbike users.<br>- Addresses the risk of tension between communities over water access during temporary construction related restrictions.<br>- Addresses the risk of misconduct, intimidation, or abuse by security personnel if deployed for asset protection.<br>- Addresses the risk of harmful inward migration or labor influx associated with perceived project benefits. |
| **ESS5:** Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement | - ESS5 is not triggered because all two water catchments are located entirely on existing government owned land, as confirmed in Annex 2.<br>- Addresses only temporary risks such as short-term restriction of access to grazing areas, footpaths, and water points during construction.<br>- Addresses the risk of pastoral households temporarily facing difficulty accessing watering areas during excavation and fencing installation.<br>- Addresses the risk of perceived inequity in water distribution during rehabilitation works.<br>- Addresses the risk of misunderstandings regarding catchment boundaries if work areas are not clearly demarcated.<br>- Addresses the risk of informal encroachment or disputes over adjacent grazing land if site demarcation is unclear. |
| **ESS6:** Biodiversity Conservation | - Addresses the risk of minor vegetation clearance within catchment footprints and along embankment zones beyond what is strictly necessary.<br>- Addresses the risk of temporary disturbance to grazing patterns and small fauna using the catchment areas.<br>- Addresses the risk of localized habitat alteration due to excavation, spoil placement, and embankment reshaping.<br>- Addresses the risk of increased human and livestock concentration around rehabilitated catchments potentially affecting surrounding vegetation.<br>- Confirms that no protected areas, critical habitats, or known sensitive species have been identified within or near the project sites. |

| | |
|---|---|
| | - Acknowledges that impacts are expected to be localized, site specific, and reversible with proper mitigation measures. |
| **ESS8:** Cultural Heritage | - Addresses the risk of chance finds of cultural or historical materials during excavation (e.g., pottery, graves, artifacts).<br>- Addresses the risk of damaging culturally important trees, markers, or unrecorded burial sites.<br>- Addresses the risk of community conflict if cultural heritage is discovered and not reported or managed appropriately. |
| **ESS10:** Stakeholder Engagement and Information Disclosure | - Addresses the risk of excluding women, youth, minority groups, and vulnerable households from consultations and project decision-making.<br>- Addresses the risk of poor communication leading to confusion about project objectives, benefits, and construction schedules.<br>- Addresses the risk of insufficient information disclosure on temporary water disruptions, access restrictions, and safety risks.<br>- Addresses the risk of low awareness or poor access to the GM, resulting in unresolved grievances.<br>- Addresses the risk of weak coordination and miscommunication between MoAI-FGS, Jubaland MoAI, district authorities, FAO, and community leaders. |
| **SEA/SH –** Sexual Exploitation, Abuse, and Harassment (Cross-cutting: ESS1, ESS2, ESS4, ESS10) | - Addresses the risk of SEA/SH incidents involving workers and community members, particularly women and girls.<br>- Addresses the risk of increased vulnerability to SEA/SH due to worker–community interaction around the project area.<br>- Addresses the risk of underreporting of SEA/SH due to stigma, fear of retaliation, or lack of confidential reporting channels.<br>- Addresses the risk of misconduct by security personnel or project workers that could lead to exploitation, abuse, or harassment. |

**World Bank Group EHS Guidelines:** The project will adhere to the WBG's General Environmental, Health, and Safety (EHS) Guidelines (EHSGs). The Subproject's commitment to adhering to the World Bank Group's General Environmental, Health, and Safety (EHS) Guidelines is a cornerstone of its risk management strategy. These guidelines are technical reference documents that define **Good International Industry Practice (GIIP)** for managing EHS issues in a sustainable manner.

For this civil works project, they are critically important as they provide a practical and authoritative framework for implementing effective mitigation measures related to **Occupational Health and Safety** (e.g., use of PPE, site safety protocols), **Community Health and Safety** (e.g., site security, traffic management), and **Environmental Pollution Control** (e.g., managing dust, noise, and waste) during construction and operation. Their application ensures the Subproject is implemented to a high standard of safety and environmental stewardshipIn cases where Somali regulations and World Bank policies differ, the World Bank Standards will prevail and will be applied. This ESMP, along with the associated plans, S-FSRP Frameworks, and Manuals (ESMF, RPF, IPMP, LMP, WMP, GM, SEP, etc.), is legally binding on the contractor. The Contractor is required to prepare their C-ESMP upon signing the work contract and before commencing work. This preparation is based on the proposed management framework of this document (ESMP), the World Bank Environmental and Social Framework (ESF), and the Good International Industry Practice (GIIP) included in the EHSGs.

Detailed gap analysis has been developed with the project approved ESMF, refer to the following link: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099101123104521377/p1778160d5cf1003093810fb7fa9629a42?utm_source=chatgpt.com

# 5. Environmental and Social Risks and Impacts – Overview

E&S screening determined that the two subprojects are classified as Moderate Risk activities (see Annex 1a, b, and c) under the WB ESF and the S-FSRP FESM. The project is expected to generate substantial long term environmental and socio-economic benefits for the two villages and surrounding agropastoral communities in Baardheere District. In particular, rehabilitation and expansion of the WCs will improve dry season water availability, enhance drought resilience, strengthen livestock productivity, and reduce vulnerability to climate variability in line with S-FSRP objectives.

However, as with all civil works involving large scale excavation, embankment formation, geomembrane lining, operation of heavy machinery, and installation of solar powered pumping systems and associated auxiliary infrastructure, a range of short-term E&S risks may arise during construction. These include soil disturbance, embankment instability, dust and noise emissions, temporary disruption of water access, CHS risks associated with deepened WCs, and labor related risks under ESS2. This section provides an overview of anticipated positive and negative impacts and links them to the applicable ESSs, together with the management measures to be implemented through this ESMP and the Contractor's C-ESMP.

## 5.1 Positive Impacts

The two Water Catchment Rehabilitation Subprojects will significantly improve dry season water availability, livestock productivity, and community resilience in Shimbiroole and Sirinley villages in Baardheere District. Key positive outcomes include:

- **Restored water storage capacity and improved water security:** Rehabilitation of the Shimbiroole and Sirinley water catchments will substantially improve water storage capacity and year-round water availability for surrounding communities. At present, Shimbiroole holds approximately 272 $m^3$ and Sirinley approximately 83 $m^3$, but both sites are heavily silted, shallow, and unable to retain sufficient volumes through the dry season. Through excavation, reshaping, and upgrading the basin to the standardized dimensions of 100 m × 90 m × 4 m, each catchment will reach an estimated storage capacity of 27,000 $m^3$ per filling cycle. This major increase in capacity will enhance water retention, improve resilience against rainfall variability, and reduce seasonal shortages for the households and livestock that depend on these communal catchments. The improved structures will provide more reliable access to water during prolonged dry periods, reducing pressure on other water points and strengthening community drought preparedness in Baardheere District.

- **Improved water quality and sanitation conditions:** Installation of perimeter fencing, solar powered pumping systems, pump chambers, elevated storage tanks, and dedicated livestock watering troughs will significantly improve water quality management at the Shimbiroole and Sirinley catchments. These structures will reduce direct contamination risks by limiting open access to the storage area, organizing water distribution, and separating livestock from the primary storage point. Controlled abstraction and improved distribution infrastructure will

help reduce turbidity, minimize sediment disturbance, and enhance overall hygiene conditions at the rehabilitated sites

- **Employment creation and income generation:** Construction activities will generate short term employment opportunities for skilled and unskilled laborers, with priority given to local community members, including youth, women, IDPs, and vulnerable households, in line with the project's Labor Management Procedures. This will provide temporary income support and stimulate local economic activity during implementation.

- **Strengthened community water management capacity:** Through engagement with village water committees and local leadership structures, and the provision of orientation on the operation and maintenance of the solar powered pumping systems, elevated storage tanks, perimeter fencing, and livestock watering troughs, the Shimbiroole and Sirinley subprojects will strengthen community-based water governance and improve the long term sustainability of the rehabilitated systems. These measures will enhance local capacity to manage the upgraded infrastructure, ensure proper use of the facilities, and promote shared responsibility for the protection and maintenance of communal water resources.

- **Reduced dependency on water trucking and commercial vendors:** Increased storage reliability will reduce reliance on emergency water trucking and costly commercial water purchases during drought periods. The introduction of solar powered pumping will also reduce dependence on diesel fuel, lower operational costs, and decrease greenhouse gas emissions.

Collectively, these benefits will contribute to strengthened pastoral livelihoods, improved public health conditions, enhanced livestock survival rates, and increased climate resilience for the two villages and surrounding communities in Baardheere District.

## 5.2 Potential Negative Impacts

Although overwhelmingly beneficial, the subprojects may generate localized and temporary negative environmental and social impacts, primarily during the ***construction phase.*** These impacts are site specific, predictable, reversible, and can be effectively managed through the mitigation measures outlined in this ESMP and the contractor's C-ESMP.

***Potential Environmental Risks include:***

- Soil disturbance, compaction, and erosion associated with large scale excavation, embankment formation, silt trap construction, pump house foundations, tank platforms, and temporary stockpiling of excavated material.

- Risk of runoff related contamination, including accidental discharge of cement washout, concrete slurry, fuel residues, oils, or chemicals into surrounding soils or into partially filled catchments during construction.

- Generation and improper disposal of construction wastewater, including equipment washing water and wastewater from temporary worker sanitation facilities if not properly managed.

- Temporary air quality impacts, such as dust emissions from excavation, compaction, backfilling, and vehicle movement along feeder roads and rural tracks.

- Noise and vibration impacts from construction machinery, material transport, welding, and concrete works affecting nearby households and livestock.

- Vegetation disturbance, including clearing of shrubs and grasses within catchment footprints and embankment zones, potentially affecting localized grazing patterns.

- Risk of deterioration in water quality parameters, including increased turbidity, Total Suspended Solids (TSS), and concentration of Total Dissolved Solids (TDS) due to evaporation and improper drainage during construction.

- Fuel storage, fire, and explosion hazards related to improper storage of diesel, lubricants, and absence of basic firefighting equipment at worksites.

- Climate related risks, including embankment instability during intense rainfall events, localized flooding caused by temporary spoil heaps, and heat stress risks for workers in semi-arid conditions.

- Biodiversity related risks, including temporary disturbance to small fauna, birds, and reptiles commonly found in pastoral rangelands.

***Potential Social, Community Health, and Safety Risks include:***

- Temporary disruption of community access to existing water points, livestock routes, grazing areas, and informal footpaths during excavation and fencing installation.

- Risks to children, pedestrians, and livestock, particularly where deepened catchments and open excavations intersect with daily movement routes.

- Drowning risks associated with deepened catchments if access is not adequately controlled during and after construction.

- Community health and safety risks associated with construction traffic along feeder roads and interaction between workers and local residents.

- Electrical hazards during installation and commissioning of solar panels, inverters, and pumping equipment.

- Potential social tension related to labor engagement, including perceptions of unfair recruitment or competition between local and external workers.

- Access barriers for persons with disabilities and elderly persons during temporary construction related disruptions.

***Labor and Occupational Health and Safety Risks (ESS2) include:***

- Manual handling injuries from lifting geomembrane sheets, steel components, solar panels, pumps, and construction materials.

- Risks associated with deep excavation works, unstable embankments, and heavy machinery operation.
- Heat stress, dehydration, and fatigue due to high ambient temperatures.
- Inadequate worker welfare facilities, including sanitation, rest areas, and drinking water, if not properly managed.
- Chemical exposure risks from fuels, lubricants, adhesives, and construction materials.

***Land, Livelihood, and Cultural Risks include:***

- Temporary restriction of access to grazing areas and watering points during works.
- Short term disruption of livestock movement patterns.
- Risk of disturbance to unmarked graves, sacred trees, or culturally significant features during excavation activities.

***Stakeholder Engagement and Grievance Related Risks (ESS10) include:***

- Limited access to project information for women due to social norms and household responsibilities.
- Literacy and language barriers affecting effective use of written grievance channels.
- Risk of rumors and misinformation regarding project benefits, employment opportunities, water allocation, or land ownership.

All identified risks will be addressed through the contractor's C-ESMP, LMP, Waste Management Plan (WMP), OHS measures, SEA/SH Prevention and Response Action Plan, Security Management Framework (SMF), and the project GM, in accordance with the WB ESF.

Overall, based on the environmental and social screening conducted in 15$^{th}$of November 2025 and supported by field assessments and community consultations, the two water catchment subprojects are classified as Moderate Risk activities (see Annex 1a, b, and c). The potential adverse impacts are temporary, localized, and fully reversible with effective implementation of the ESMP and contractor C-ESMP.

Furthermore, the long-term benefits of the project including restored storage capacity, improved water quality management, enhanced livestock survival, strengthened drought resilience, and reduced dependency on water trucking significantly outweigh the temporary construction phase impacts. The project is therefore expected to contribute positively to sustainable livelihoods and climate resilience within the Shimbiroole and Sirinley communities in Baardheere District.

# 6. Environmental and Social Management Plan

The Environmental and Social Management Plan (ESMP) outlines the specific mitigation measures required to address the environmental and social risks associated with the rehabilitation and upgrading of the two water catchments located in Shimbiroole and Sirinley villages in Baardheere

District. These measures are aligned with the World Bank Environmental and Social Standards (ESSs) and the S-FSRP Environmental and Social Management Framework.

The ESMP provides clear institutional responsibilities, practical mitigation approaches, monitoring arrangements, and implementation timelines to ensure that all anticipated impacts related to excavation works, geomembrane lining, embankment formation, construction of auxiliary structures, installation of solar-powered pumping systems, elevated storage tanks, livestock troughs, fencing, and associated facilities are avoided, minimized, or properly managed throughout the construction and early operational phases.

Given that the two subprojects are similar in scope, scale, and technical configuration, this ESMP applies a clustered safeguards approach, ensuring consistent environmental and social risk management across all sites while maintaining flexibility for site-specific conditions. The mitigation measures address risks related to soil erosion, embankment instability, water quality deterioration, occupational health and safety, community safety, labor management, SEA/SH prevention, temporary access restrictions, and stakeholder engagement.

Table 4 below summarizes the key environmental and social risks and the corresponding mitigation measures for each applicable ESS, together with responsible parties and monitoring requirements to ensure effective implementation during the subproject lifecycle.

*Table 4: Environmental & Social Mitigation Plan*

| Risks / Impacts | Mitigation Measures | Methods / Tools / Resources | Responsibility | Project Phase | Timeline / Frequency | Mitigation Budget |
|---|---|---|---|---|---|---|
| *ESS1 – Assessment and Management of Environmental and Social Risks and Impacts* | | | | | | |
| ***A. Environmental Risks:***<br>▪ Soil erosion and embankment instability during large scale excavation and deepening of the two water catchments;<br>▪ Hydrological disruptions including increased turbidity, sediment suspension, and temporary alteration of runoff patterns within and around the catchment footprint;<br>▪ Temporary interruption of water access for livestock and domestic use during construction works;<br>▪ Risk of localized flooding or waterlogging due to altered surface drainage during excavation and spoil placement;<br>▪ Improper spoil disposal blocking natural drainage paths or grazing areas; | *A. Environmental:*<br>- Fully implement ESMP & C-ESMP;<br>- Stabilize catchment banks & excavated areas immediately;<br>- Schedule works outside peak rains;<br>- Provide temporary water storage (such as small berkeds) to maintain irrigation;<br>- Daily inspection of embankment and erosion-sensitive areas<br>- Maintain existing drainage pathways and avoid blocking natural flow routes (inlets & outlets) during excavation;<br>- Restrict heavy machinery movement to designated access routes and catchment alignment only;<br>- Regrade and fully compact disturbed banks & surfaces to restore natural flow patterns.<br>- Designate approved spoil disposal areas away from | - ESMP & C-ESMP<br>- Sediment/flow control tools<br>- FAO inspection checklists<br>- Conflict mapping tools;<br>- GM logs & communication sheets<br>- Site drainage layout review;<br>- Compaction control checklists;<br>- Spoil management maps;<br>- FAO supervision checklists.<br>- Water use monitoring logs;<br>- Community consultation records;<br>- FAO supervision reports.<br>- | - Contractor (primary)<br>- FAO Supervising Engineer<br>- NPCU – MoAI (oversight)<br>- Jubaland State PIU (coordination) | Construction | - Daily inspection (Contractor);<br>- Weekly supervision (FAO SE)<br>- Continuous during critical works | - Included in contract price;<br>- Included in FAO supervision & management budget |

| | | | | | | |
|---|---|---|---|---|---|---|
| ▪ Embankment collapse risk during heavy rainfall events;<br>▪ Concentration of Total Dissolved Solids due to evaporation in partially filled catchments if drainage is poorly managed;<br>▪ Risk of cumulative pressure on local water resources during dry seasons if construction overlaps with water scarcity periods;<br>▪ Risk of contamination of stored water from construction runoff if protective measures are not implemented.<br><br>***B. Social Risks*:**<br>▪ Water use conflicts among agro pastoral households during temporary closure or restricted access to catchments;<br>▪ Tension between livestock owners and households over water access sequencing during rehabilitation;<br>▪ Exclusion of vulnerable households, women, IDPs, | inlet channels, Household settlement and grazing land;<br>-<br>***B. Social:***<br>- Conduct conflict mapping prior to works;<br>- Transparent targeting of vulnerable/marginalized groups;<br>- Maintain daily communication with WUCs;<br>- Use GM to record/resolve grievances;<br>- Coordinate water distribution schedules.<br>- Provide advance notice of temporary water access restrictions.<br><br>***C. Administrative & Cumulative***<br>- Weekly FAO supervision + non-compliance notices;<br>- Contractor keeps daily logs & ESMP checklists;<br>- Monthly E&S refresher training for workers;<br>- Strengthen C-ESMP using FAO TA tools/templates.<br>- Prohibit abstraction of community drinking water sources for construction use;<br>- Source construction water from approved locations; | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| and minority groups from water access planning;<br>▪ Increased pressure on shared water resources due to temporary worker presence.<br><br>***C. Administrative Risks:***<br>▪ Weak ESMP and C-ESMP implementation at site level;<br>▪Poor coordination between Contractor, FAO, NPCU and Jubaland State PIU;<br>▪Inadequate supervision of embankment shaping and lining works;<br>▪Delayed E&S monitoring and reporting;<br>▪Risk of non-operational GM during construction;<br>▪Weak documentation of environmental *inspections and corrective actions.*<br><br>***D. Cumulative and Indirect Risks:***<br>▪ Increased demand on local water sources due to construction water needs;<br>▪ Perceived employment expectations leading to social tension; | - Clearly communicate that employment opportunities are limited and temporary;<br>- Coordinate with local leaders to manage expectations and prevent informal settlements;<br>- Monitor population influx indicators during construction. | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| ▪ Indirect degradation of grazing areas due to uncontrolled machinery movement*;*<br>▪ Increased livestock congregation near partially rehabilitated catchments causing sanitation and erosion concerns. | | | | | | |
| *ESS2 – Labor and Working Conditions* | | | | | | |
| ***A. Labor Risks****:*<br>- Risk of child labor or forced labor;<br>- Unfair recruitment practices and exclusion of women, youth, and vulnerable groups;<br>- Delayed payment of wages leading to disputes;<br>- Lack of written contracts and unclear employment terms.<br><br>***B. Occupational Health & Safety (OHS) Risks:***<br>- Injuries from machinery, open excavations, unstable banks;<br>- Exposure to excessive noise and vibration;<br>- Heat stress, dehydration, and unsafe working hours;<br>- Lack of PPE and inconsistent use; | ***A. Labor Standards****:*<br>- Implement the project's LMP in full;<br>- Verify worker ages (18+ only);<br>- Establish and publicize a confidential worker GM;<br>- Promote inclusion of women, youth and minority groups;<br>- Communicate payment schedules clearly to avoid disputes.<br><br>***B. Occupational Health & Safety:***<br>- Provide full PPE (helmets, gloves, boots, reflective vests, ear protection);<br>- Conduct daily toolbox talks and weekly OHS sessions;<br>- Provide clean drinking water, shaded rest areas, and sanitation facilities;<br>- Implement heat-stress management (adjust shifts, rest breaks); | - Labor Management Procedures (LMP);<br>- Code of Conduct (CoC);<br>- Worker GM tools;<br>- PPE sets;<br>- OHS toolbox talk templates;<br>- Accident/incident logs;<br>- Payment monitoring tools;<br>- Safety Risk Assessment forms;<br>- Training attendance registers | - Contractor (primary implementer);<br>- FAO Technical Assistance team (training, oversight);<br>- FAO Supervising Engineer (verification)<br>- NPCU – MoAI (labor compliance oversight);<br>- Jubaland State PIU (worker engagement/support) | Construction & Operation | - Daily OHS toolbox talks;<br>- Weekly OHS inspections by contractor;<br>- Weekly FAO supervision<br>- Monthly labor audits | - Included in contract price<br>- Supported under FAO supervision budget;<br>- Included in MoAI operational costs |

| | | | | | | |
|---|---|---|---|---|---|---|
| - Poor site layout and unsafe access paths;<br>- Exposure to dust during excavation and backfilling;<br>- Electrical hazards during installation of solar panels, inverters, and pumping systems;<br><br>***C. Administrative and Compliance Risks:***<br>- Poor implementation of Labor Management Procedures (LMP);<br>- No worker GM or weak confidential reporting system;<br>- Lack of OHS incident reporting, RCAs, and training; Labor standards not aligned with national laws or EHSGs;<br>- Inadequate record-keeping (hours worked, incidents, contracts). | - Train machinery operators and enforce licensing requirements;<br>- Conduct Safety Risk Assessments and update site layout;<br>- Keep accident and near-miss logs and conduct Root Cause Analysis (RCA);<br><br>***C. Administrative Measures:***<br>- Monthly refresher training for all workers;<br>- Maintain up-to-date labor registers, GM records, OHS logs;<br>- Enforce Code of Conduct (CoC) for all workers with clear penalties;<br>- Continuous supervision by FAO to ensure compliance. | | | | | |
| *ESS3 – Resource Efficiency and Pollution Prevention* | | | | | | |
| ***A. Pollution Risks:***<br>- Dust emissions from excavation, vehicle movement, dry soils;<br>- Noise and vibration from machinery and equipment;<br>- Air emissions (smoke, diesel fumes) from poorly | **A. Pollution Control:**<br>- Use water sprinklers to suppress dust on required access roads and work sites;<br>- Maintain vehicles and machinery regularly (oil change, tuning, filter replacement); | - Waste Management Plan (WMP);<br>- Water truck / sprinklers;<br>- Fuel/oil bunds;<br>- Spill kits;<br>- Water testing kits (TDS, TSS); | - Contractor (primary implementer)<br>- FAO Supervising Engineer (verification);<br>- NPCU – MoAI (oversight); | Construction & early operation | - Daily pollution checks;<br>- Weekly waste & fuel inspections;<br>- Monthly reporting by contractor; | - Included in contract prise;<br>- Included in FAO supervision budget |

| | | | | | | |
|---|---|---|---|---|---|---|
| maintained machinery (negligible);<br>- Fuel and oil spills contaminating soil and water sources;<br>- Risk of contamination of partially filled catchments from construction runoff;<br>- Increased turbidity and sediment load within catchment basins during excavation;<br>- Improper storage of construction materials near water bodies.<br><br>*B. **Waste Management Risks:***<br>- Accumulation of construction debris and vegetation waste;<br>- Lack of proper waste segregation (hazardous vs non-hazardous);<br>- Disposal of waste in unauthorized locations;<br>- Community exposure to unsafe waste piles;<br>- Improper disposal of geomembrane off cuts and packaging materials;<br>- Lack of segregation between hazardous and non-hazardous waste;<br>- Disposal of waste in grazing areas; | - Limit noisy activities to daytime hours and notify nearby households;<br>- Store fuel/oil in bunded, labeled containers away from waterways;<br>- Keep spill kits on site and train workers on their use;<br>- Prevent runoff from entering partially filled catchments.<br><br>*B. **Waste Management:***<br>- Implement Waste Management Plan (WMP);<br>- Clearly label waste bins: general waste, hazardous waste, organic waste;<br>- Identify authorized disposal sites in collaboration with WUC & State MoAI;<br>- Remove debris regularly and ensure safe transport to disposal sites;<br>- Prohibit burning of waste;<br>- Reuse suitable excavated material for embankment shaping where feasible<br><br>***C. Water & Soil Quality Safeguards:***<br>- Minimize vegetation disturbance to avoid exposed soils.<br>- Install erosion control measures (brush barriers, silt fences were required); | - Training materials | - Jubaland State PIU (coordination & local enforcement) | | - Continuous monitoring during excavation & earthworks | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *C. **Water & Soil Quality Risks:***<br>- Erosion and sedimentation entering river/canal systems (low);<br>- High Total Dissolved Solids (TDS) water used for irrigation causing soil salinization;<br>- Increased Total Suspended Solids (TSS) in canal water;<br>- Contamination of shallow water sources;<br>- Localized waterlogging caused by altered surface drainage during trenching and backfilling;<br>- Soil productivity loss due to compaction in grazing land/cultivated plots adjacent to works.<br>- Soil salinization risks if poor quality water accumulates; | - Conduct TDS/TSS analysis before allowing irrigation water use;<br>- Avoid using water with TDS > 1,500 ppm for irrigation;<br>- Monitor turbidity during excavation near water inlets.<br>- Restore surface contours after trench closure;<br>- Monitor post rainfall drainage conditions and correct pooling immediately. | | | | | |
| *ESS4 – Community Health, Safety, and Security* | | | | | | |
| ***A. Community Health & Safety Risks:***<br>- Exposure to construction hazards (machinery, trucks, excavations);<br>- Unsafe access around open trenches, axillary structures (Water storage, geomembrane sheet, silt trap, troughs & kiosk | ***A. Community Health & Safety Measures:***<br>- Install robust fencing, barriers, and warning signage around all hazardous zones;<br>- Restrict unauthorized entry into the construction area except for workers;<br>- Conduct community awareness sessions on | - Security Management Plan (SMP);<br>- Traffic Management Plan (TMP);<br>- Fencing, barriers & signage;<br>- Debris removal procedures; | - Contractor (primary implementer);<br>- FAO Supervising Engineer (verification & compliance enforcement);<br>- FAO Technical Assistance (training & oversight); | Construction | - Daily safety checks (Contractor);<br>- Weekly FAO supervision;<br>- Monthly security reviews; | - Included in contractor's BoQ;<br>- Included in project management & FAO supervision budget |

| | | | | | | |
|---|---|---|---|---|---|---|
| reconstruction /rehab specified sites) and unstable banks;<br>- Child safety risks when children walk near the site or along farm paths;<br>- Livestock injury risks due to unstable embankments or open excavation zones;<br>- Temporary disruption of livestock movement routes and watering access;<br>- Electrical hazards during installation and testing of solar panels, inverters, and pumps;<br>- Community exposure to dust and noise during peak excavation works.<br><br>***B. Security Risks:***<br>- Misconduct, intimidation, or abuse by security personnel;<br>- Tension or conflict between hired guards and communities;<br>- Excessive or disproportionate security practices;<br>- Theft or vandalism of solar panels, pumps, and electrical equipment during or after installation; | construction risks, especially targeting women, youth, and farmers;<br>- Provide safe and clearly marked temporary access routes including footpaths, vehicle bypasses, and pedestrian crossings around all work areas involving water storage, troughs, kiosk and excavated sections of the catchment;<br>- Install perimeter fencing around rehabilitated catchments to prevent uncontrolled access;<br>- Ensure proper embankment compaction and slope stabilization;<br>- Remove debris regularly following EHSG guidelines;<br><br>***B. Security Management Measures*:**<br>- Implement and monitor the Security Management Plan (SMP);<br>- Hire the security guards from the local community & train human rights, respectful engagement, and proportional use of force to avoid conflicts;<br>- Require guards to sign and comply with a Security Code of Conduct; | - EHSG safety guidelines;<br>- GM system (including security channel);<br>- Training materials (security, GBV, community safety);<br>- Community awareness materials<br>- Asset inventory logs;<br>- Incident reporting forms. | - Jubaland State PIU (community coordination);<br>- WUC (local communication) | | - Continuous community sensitization | |

| | | | | | | |
|---|---|---|---|---|---|---|
| - Sporadic insecurity affecting material transport routes and workforce safety.<br>-<br>*C**. Fragility, Conflict & Social Tension Risks***:<br>- Harmful inward migration driven by perceived project benefits;<br>- Community dynamics disrupted by labor influx;<br>- Clashes or friction between villages over canal access, water distribution, or workforce selection;<br>*D. Traffic and Road Safety Risks:*<br>- Increased traffic from machinery, trucks, and service vehicles;<br>- Accidents involving children, livestock, or farmers using the same paths;<br>- Unsafe turning points, blind spots, and unregulated movement of heavy equipment. | - Secure storage of solar panels and equipment in fenced and guarded areas;<br>- Install solar infrastructure only when site security arrangements are in place;<br>- Coordinate material transport schedules with district authorities and local leaders;<br>- Implement night-time security patrols where required;<br>- Report security incidents immediately through the project GM and SMP channels.<br>-<br>***C. Fragility & Social Risk Mitigation***:<br>- Base targeting decisions on FINA findings and transparent vulnerability criteria;<br>- Conduct consultations with local authorities, village elders and WUCs/Canal Committee to reduce tension;<br>- Track population influx risks and adjust site management plans accordingly;<br>- Provide clear communication on project benefits and eligibility.<br><br>***D. Traffic and Road Safety Controls***: | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | - Develop and implement a Traffic Management Plan (TMP);<br>- Enforce strict speed limits around work zones;<br>- Install traffic warning signs at key points used by pedestrians, trucks and livestock;<br>- Train vehicle operators and road workers on safety risks;<br>- Maintain access routes clear and safe for community use. | | | | | |
| *ESS5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement* | | | | | | |
| - **ESS5 is *not triggered*.** The two catchments lie fully within existing public land owned by the Government**,** as confirmed in *Annex 2 – Land Ownership Confirmation Letter***.** No land acquisition, displacement, or loss of assets is required or taken place.<br>***Temporary Risks Only*:**<br>- Short-term access disruption to catchment banks and footpaths during excavation;<br>- Temporary difficulty accessing catchment areas during construction;<br>- Temporary restriction of livestock movement routes; | - Maintain open community access routes and farm paths wherever possible;<br>- Use temporary bypass paths and clearly mark safe pedestrian areas;<br>- Provide advance notice (48–72 hours) before temporary flow interruptions or access restrictions;<br>- Coordinate daily with the WUC to manage water distribution schedules;<br>- | - Consultation records;<br>- Access route signage;<br>- WUC/Canal Committee coordination logs<br>- GM system | - Contractor (implementation);<br>- State PIU (liaison & awareness)<br>- FAO Supervising Engineer (verification);<br>- NPCU (oversight) | Pre-construction & Construction | - Daily access checks;<br>- Weekly community updates | - Included in contractor's BoQ; |

| | | | | | | |
|---|---|---|---|---|---|---|
| - Perceived concerns about fairness in water access during rehabilitation;<br>- Misunderstanding regarding site boundaries if work areas are not clearly demarcated. | | | | | | |
| ESS6 – Biodiversity Conservation | | | | | | |
| - Temporary disturbance to livestock and small fauna using canal corridors;<br>- Short-term alteration of micro-habitats during excavation.<br>- Clearing of invasive species (Prosopis juliflora) without controlled disposal may lead to seed spread and re-infestation;<br>- Minor vegetation clearance within catchment footprints and embankment areas;<br>- Temporary disturbance to grazing areas used by livestock;<br>- Disturbance to small fauna including birds, reptiles, and rodents common in semi-arid rangelands;<br>- Temporary alteration of micro habitats due to excavation and spoil placement; | - Limit vegetation removal to areas strictly needed for catchment shaping;<br>- Avoid harming livestock; maintain access routes for grazing animals;<br>- Ensure machinery operates only within the existing catchment footprint;<br>- Prohibit dumping spoil in vegetated or grazing areas.<br>- Remove Prosopis juliflora using controlled cutting techniques;<br>- Collect, transport, and dispose of Prosopis biomass at approved disposal sites;<br>- Prohibit leaving cut Prosopis material on site;<br>- Maintain temporary livestock crossing points where catchment works interrupt grazing routes;<br>- Supervise excavation to prevent unnecessary disturbance of natural areas; | - Hand tools with controlled clearing techniques were required;<br>- Site supervision checklists<br>- Controlled clearing tools;<br>- Supervised biomass disposal procedures;<br>- Daily site supervision logs. | - Contractor (implementation);<br>- FAO Supervising Engineer (monitoring);<br>- State PIU (coordination) | Construction | - Daily supervision during clearing;<br>- Weekly monitoring by FAO SE | - Included in contractor's BoQ; |

| | | | | | | |
|---|---|---|---|---|---|---|
| - Risk of uncontrolled disposal of cleared vegetation leading to land degradation;<br>- Increased livestock concentration around rehabilitated catchments potentially affecting surrounding vegetation.<br><br>***Note:*** No sensitive species or critical habitats identified during the baseline survey. Impacts are ***site-specific and fully reversible.*** | - Restore disturbed surfaces after construction;<br>- Monitor embankment slopes for erosion and revegetate where required. | | | | | |
| *ESS8 – Cultural Heritage* | | | | | | |
| - Low probability of encountering cultural or historical materials during excavation<br><br>**Note:** No known cultural heritage sites are located within the project's footprint, but ***chance finds remain possible.*** | - Apply the WB Chance Finds Procedure;<br>- Immediately stop work if artifacts or bones of dead bodies are discovered;<br>- Notify State MoAI PIU, NPCU and elders;<br>- Resume works only after official written clearance. | - Chance Finds Procedure;<br>- Reporting forms;<br>- Barrier tape/fencing materials | - Contractor (implementation);<br>- FAO Supervising Engineer (verification);<br>- NPCU – MoAI (oversight) | Construction | - Activate procedure *only if triggered*;<br>- Immediate reporting within same day | - Contractor cost (no additional budget required) |
| *ESS10 – Stakeholder Engagement and Information Disclosure* | | | | | | |
| ***A. Inclusion & Participation Risks:***<br>- Exclusion of women, youth, minority, and vulnerable groups from consultations and project decisions; | ***A. Inclusion Measures:***<br>- Implement the Stakeholder Engagement Plan (SEP) throughout project stages;<br>- Hold inclusive consultations ensuring participation of women, youth, elders, WUC | - Stakeholder Engagement Plan (SEP);<br>- GM tools (register, hotline, complaint forms); | - NPCU – MoAI (oversight);<br>- Jubaland State PIU (community engagement); | Pre-construction & Construction | - Weekly community updates;<br>- Monthly GM reviews;<br>- Consultations as needed | - Included in project management budget;<br>- Included in contractor obligations |

| | | | | | | |
|---|---|---|---|---|---|---|
| - Poor communication causing confusion about project benefits or schedules;<br><br>***B. Information Disclosure Risks:***<br>- Insufficient dissemination of project information to farmers and water users;<br>- Limited understanding of temporary water disruptions or construction impacts;<br><br>***C. GM Risks:***<br>- Low awareness or poor access to the grievance mechanism;<br>- Difficulty monitoring social harm or addressing complaints promptly. | members, and vulnerable groups; Provide schedules, updates, and notices in simple local Somali language.<br><br>***B. Information Disclosure:***<br>- Regularly inform communities of construction timelines, flow interruptions, and safety precautions;<br>- Share updates through WUCs, village leaders, and State PIU;<br>- Display key information on boards at site and village centers.<br><br>*C.* ***GM Strengthening:***<br>- Disseminate/publicize GM channels widely (phone numbers, focal persons, complaint boxes);<br>- Maintain GM logs at PIU & contractor level;<br>- Provide feedback to complainants and close cases promptly;<br>- Monitor GM performance monthly and escalate cases if unresolved. | - Consultation attendance sheets;<br>- Community information boards | - FAO Technical Assistance (support & training);<br>- Contractor (on-site disclosure, GM awareness) | | | |
| *SEA/SH – Sexual Exploitation, Abuse & Harassment* | | | | | | |
| - Risk of SEA/SH involving workers and community members;<br>- Worker–community interaction increasing | - Implement and monitor the SEA/SH Action Plan;<br>- Mandatory Code of Conduct (CoC) for all workers and security staff; | - SEA/SH Action Plan;<br>- Signed CoCs;<br>- Confidential GM channels; | - Contractor (implementation);<br>- FAO Technical Assistance (training & oversight); | Construction | - Monthly worker training<br>- Continuous GM availability;<br>- Weekly supervision | - Included in contract price;<br>- Included in TA & project |

| | | | | | | |
|---|---|---|---|---|---|---|
| vulnerability of women and girls;<br>- Underreporting due to stigma or fear;<br>- Security personnel misconduct;<br><br>*Cross-cuts ESS1, ESS2, ESS4 & ESS10.* | - Conduct SEA/SH awareness and prevention sessions for workers and communities;<br>- Provide confidential, survivor-centered SEA/SH GM reporting pathway;<br>- Train SEA/SH community focal points;<br>- Ensure separate sanitation facilities for men and women on site;<br>- Immediate referral of survivors to appropriate support services. | - Training & sensitization materials;<br>- Focal point appointment letters | - FAO Supervising Engineer (verification);<br>- State PIU (community awareness);<br>- NPCU (compliance) | | | management budget |

## 6.1 Environmental & Social Monitoring Plan

The Environmental and Social Monitoring Plan describes how the implementation of mitigation measures will be tracked and verified during construction. Monitoring ensures that safeguards commitments are being followed, emerging issues are addressed promptly, and corrective actions are taken when required. It also clarifies the roles of the Contractor, FAO, the State PIU, and the NPCU in supervising compliance with environmental and social requirements. All monitoring activities are covered under the ESMP budget and project supervision costs. The table 3 below presents the indicators, methods, responsibilities, and reporting arrangements for continuous monitoring of ESMP implementation.

*Table 5: Environmental & Social management Plan*

| ESS / Area | Monitoring Indicators | Monitoring Method | Responsibility | Frequency | Reporting To |
|---|---|---|---|---|---|
| ***ESS1 – E&S Risk Management*** | -Embankment stability and absence of erosion<br>- Water flow continuity during construction<br>- Implementation status of ESMP/C-ESMP<br>- Conflict incidents logged and resolved | - Routine site inspections<br>- Photographic evidence (before/after works)<br>- Daily contractor site logs<br>- GM database review<br>- post-rainfall drainage checks | Contractor / FAO Supervising Engineer / State PIU | Daily / Weekly | NPCU & FAO |

| | | | | | |
|---|---|---|---|---|---|
| | - Drainage pathways maintained (no waterlogging observed)<br>- Soil compaction observed in grazing land/cultivated areas<br>- Spoil disposed only in approved locations<br>- Evidence of cumulative impacts (resource pressure, population influx) | | | | |
| ***ESS2 – Labor & Occupational Health & Safety (OHS)*** | - PPE availability and proper use<br>- Worker attendance, contracts, and age verification<br>- Toolbox talks conducted as scheduled<br>- Worker GM cases registered and resolved<br>- OHS incidents and RCA reports<br>- Heat-stress prevention measures implemented<br>- Safe handling of pipes, machinery, and excavations | - Direct observation<br>- Review of worker registers and contracts<br>- OHS logs and accident registers<br>- GM review<br>- Heat-stress and excavation safety checklists | Contractor / FAO Supervising Engineer | Daily / Weekly / Monthly | NPCU |
| ***ESS3 – Pollution Prevention & Resource Efficiency*** | - Dust and noise levels within acceptable limits<br>- Compliance with approved spoil disposal locations<br>- Proper waste segregation (hazardous and non-hazardous)<br>- TDS/TSS water quality test results<br>- Fuel and oil spill incidents recorded and addressed<br>- No contamination of surface or groundwater observed<br>- No localized water pooling due to altered drainage | - Visual inspections<br>- Water and soil quality testing<br>- Waste Management Plan (WMP) records<br>- Spill incident logs<br>- post-backfilling surface inspections | Contractor / FAO Supervising Engineer | Daily / Weekly | State PIU / NPCU |
| ***ESS4 – Community Health, Safety & Security*** | - Safety signage, fencing, and barriers in place<br>- Traffic control measures functioning | - Safety audits<br>- Community feedback sessions | Contractor / FAO Supervising Engineer | Weekly | NPCU |

| | | | | | |
|---|---|---|---|---|---|
| | - Construction debris promptly removed<br>- Security conduct logs maintained<br>- Traffic incidents involving people or livestock<br>- Security incidents (theft, vandalism, intimidation)<br>- Safe access routes maintained for pedestrians and farmers | - GM review<br>- Incident and security logs<br>- WUC coordination records | | | |
| ***ESS5 – Temporary Access Management*** | - Access routes and farm paths kept open where possible<br>- Temporary bypass paths functional<br>- No unresolved complaints on blocked access<br>- Advance notice provided before water or access disruptions | - Site inspections<br>- WUC coordination and communication logs<br>- GM review | Contractor / FAO Supervising Engineer | Daily | State PIU / FAO |
| ***ESS6 – Biodiversity Conservation*** | - Vegetation clearance minimized and controlled<br>- Livestock access and grazing routes maintained<br>- Prosopis juliflora removed and disposed of properly<br>- No spread of invasive species observed | - Field observations<br>- Site supervision checklists<br>- Biomass disposal verification | Contractor / FAO Supervising Engineer | Weekly | NPCU |
| ***ESS8 – Cultural Heritage*** | - Chance finds managed according to procedure | - Review of Chance Finds records and reports | Contractor / FAO Supervising Engineer | If triggered | NPCU |
| ***ESS10 – Stakeholder Engagement & Information Disclosure*** | - Community consultations conducted as per SEP<br>- Project information displayed at site and village level<br>- GM usage and case closure rate<br>- Community awareness of safety measures and water interruptions<br>- Timely feedback provided to complainants | - SEP records<br>- Consultation attendance sheets<br>- GM monitoring and reports | State PIU / FAO Technical Assistance | Weekly / Monthly | NPCU |

| | | | | | |
|---|---|---|---|---|---|
| ***SEA/SH – Cross-cutting (ESS1, ESS2, ESS4, ESS10)*** | - Code of Conduct signed and enforced<br>- SEA/SH training delivered to workers and communities<br>- SEA/SH GM cases managed confidentially<br>- Survivor-centered referral pathways functional<br>- Separate sanitation facilities for men and women available | - Training records<br>- CoC compliance logs<br>- Confidential GM review | Contractor / FAO Technical Assistance / State PIU | | |

## 6.2 Capacity Building and Training Plan

Effective implementation of this ESMP depends on the capacity of the contractor, supervising institutions, and community structures to understand and apply the environmental and social requirements. The capacity-building activities will:

- Familiarize all actors with the ESMP, World Bank ESF requirements, and relevant national regulations.
- Strengthen the contractor's ability to prepare and implement a Contractor ESMP (C-ESMP), including OHS, GM, SEA/SH, and waste management.
- Equip the PIU and supervising engineers to monitor ESMP compliance and report effectively.
- Build the capacity of the Canal/Water User Committee and community representatives to support operation and maintenance (O&M), use the GM, and promote GBV/SEA/SH awareness.
- Ensure all workers receive induction and continuous toolbox talks on OHS, Code of Conduct, GM, and SEA/SH prevention.

These trainings will be delivered jointly by FAO with the State MoAI PIU, and the contractor's OHS/E&S team

*Table 6: Summary of Capacity Building Plan*

| Target Group | Training Topic(s) | Timeline / Frequency | Type / Modality | Lead Facilitator(s) | Cost / Responsibility |
|---|---|---|---|---|---|
| Prospective Contractors (bidders) | Key E&S clauses in bidding documents; ESMP and ESF obligations; minimum OHS, LMP and SEA/SH requirements | Once, during pre-bid / pre-contract briefing | Short indoor or virtual session | FAO E&S Specialist, NPCU/PIU | Covered under FAO TA / project preparation |
| Contractor's Project Manager, Site Engineer, OHS/E&S Officer, Foremen | C-ESMP preparation and implementation; OHS procedures and emergency response; Waste Management Plan; Worker and Community GM; SEA/SH Action Plan and Code of Conduct | At project start (mobilization) | Half-day face-to-face workshop plus on-site practical session | FAO E&S Specialist and State PIU E&S staff | Covered under FAO TA / PIU operating budget |
| PIU E&S Specialist and Supervising Engineer (State MoAI / NPCU) | Supervision and monitoring of ESMP/C-ESMP; WB ESF and national ESIA requirements; review of contractor E&S reports; use of simple monitoring tools | At start of works and one mid-term refresher | Face-to-face or online training session | FAO E&S Specialist | Covered under FAO TA / PIU operating budget |
| Catchment/Water User Committee and Community Representatives (elders, women, youth) | Basic canal O&M; community role in ESMP monitoring; GM access and referrals; GBV/SEA/SH | Once during mobilization and one refresher before completion | On-site participatory training in the canal village | FAO and PIU E&S staff, with WUC | Covered under FAO TA / PIU community engagement budget |

| | | | | | |
|---|---|---|---|---|---|
| | awareness; community safety around works | | | | |
| All Construction Workers (including drivers and security staff) | OHS (PPE use, site rules, safe excavation, traffic management); Code of Conduct; worker GM; SEA/SH prevention and sanctions; appropriate security behavior | Induction for all new workers and weekly toolbox talks | On-site toolbox talks / tailgate sessions | Contractor's OHS/E&S Officer, supervised by supervising engineer / FAO | Included in contractor's contract cost |

# 7. Implementation Arrangements

Effective implementation of the two subprojects rehabilitation activities require close coordination among the Federal MoAI, the Jubaland State MoAI PIU, FAO as the Technical Assistance provider, the contractor, and community structures. Responsibilities have been organized to ensure that environmental and social measures are applied consistently and in full alignment with the World Bank ESF and national regulations.

**The main institutional responsibilities are as follows:**

- ***MoAI-FGS / NPCU*:** Provides overall oversight, approves the ESMP and the Contractor ESMP (C-ESMP), ensures compliance with the Environmental and Social Commitment Plan (ESCP), consolidates E&S performance reports, and submits official updates to the World Bank.
- ***FAO Somalia (Technical Assistance and Supervision):*** Leads technical assessments, safeguards training, and construction supervision. As the Supervising Engineer, FAO conducts regular site inspections, verifies compliance with the ESMP and C-ESMP, issues non-compliance notices, monitors corrective actions, and reports environmental and social indicators through the S-FSRP MIS and dashboard.
- ***Jubaland State MoAI PIU:*** Facilitates field operations, supports community engagement, maintains the state-level grievance register, accompanies supervision missions, and ensures that community-level safeguard commitments and notifications are consistently applied.
- ***Federal Ministry of Environment and Climate Change (MoECC):*** The Federal Ministry of Environment and Climate Change (MoECC) serves as the national authority for environmental and social regulation in accordance with the Environmental Protection and Management Act (2024) and related regulations, which guide the preparation and implementation of the ESMP.
- ***Construction Contractor:*** Implements all ESMP requirements through an approved C-ESMP. Core responsibilities include environmental protection, occupational health and safety, labor management in line with the LMP, maintaining a worker grievance mechanism, enforcing SEA/SH Codes of Conduct, and applying community safety and traffic measures. The contractor must maintain daily logs, incident records, OHS documentation, and weekly reports.
- ***Community Structures (Water User Committee and village leaders):*** Support construction access, communicate schedules, assist with handling minor grievances, monitor water distribution during temporary interruptions, and contribute to long-term operation and maintenance of the rehabilitated canal.

Reporting follows a coordinated structure: the contractor submits weekly updates to FAO and the State PIU; FAO verifies compliance and prepares consolidated supervision notes; and the NPCU compiles and submits environmental and social performance reports to the World Bank. Serious incidents or accidents must be reported within 24 hours in line with ESF and project protocols.

At the end of construction, FAO and the State PIU will conduct a joint inspection with the contractor and community representatives to confirm that all works meet design and safeguards requirements. Following this, the rehabilitated subprojects will be handed over to the Jubaland State MoAI and the Water User Committee for continued operation and maintenance, with periodic post-construction monitoring to ensure sustainability.

# 8. Public Consultation and Disclosure

Stakeholder engagement for the two water catchment rehabilitation subprojects in Shimbiroole and Sirinley villages was conducted in accordance with the S-FSRP Stakeholder Engagement Plan (SEP) and included consultations at both government and community levels. Key stakeholders engaged during the assessment included the Jubaland State Ministry of Agriculture and Irrigation (MoAI-JS), the State PIU, Baardheere District Coordinator of the MoAI-JS, village elders, Water Catchment Committees, women, youth, IDPs, pastoral representatives, and other vulnerable groups. Discussions focused on the current condition of the existing water catchments, severe siltation and reduced storage capacity, prolonged drought impacts, water scarcity challenges, environmental and social risks, proposed excavation and auxiliary structures, mitigation measures, implementation arrangements, and the functioning of the project-level Grievance Mechanism (GM).

## 8.1 Consultations with Jubaland MoAI

As part of the technical assessment mission, consultations were held on 10/10/2025 with the Jubaland State Ministry of Agriculture and Irrigation (MoAI-JS) and the Baardheere District Administration at the MoAI office in Baardheere to review the proposed scope of works and confirm alignment with district and state resilience priorities.

The discussions emphasized the deteriorated condition of irrigation infrastructure across the district, including silted and underperforming water catchments, weak embankments, and increasing vulnerability to both drought and flood events. Government representatives highlighted the urgent need to rehabilitate and expand existing water catchments to strengthen water security for pastoral and agro-pastoral communities.

The consultations further clarified institutional roles and responsibilities related to oversight, community mobilization, GM coordination, environmental compliance, and security liaison under the Security Management Framework. Government representatives endorsed the prioritization of the two water catchment subprojects under S-FSRP and expressed commitment to facilitating contractor access, supporting community coordination, providing security support where required, and ensuring smooth implementation and supervision throughout construction and early operation.

## 8.2 Community Consultations in Shimbiroole and Sirinley

Community consultation meetings were conducted on 17/11/2025 in Shimbiroole Village and 18/11/2025 in Sirinley Village, with participation from elders, Water Catchment Committee members, pastoral households, women, youth, IDPs, and other vulnerable groups.

The Shimbiroole and Sirinley communities confirmed several critical challenges affecting the performance, reliability, and safety of their existing water catchments. These include:

(i) severe reduction in storage capacity due to heavy siltation, shallow basin depths, and embankment deterioration, resulting in insufficient water availability for households and livestock during prolonged dry seasons;

(ii) heavy dependence on unpredictable Gu and Deyr rainfall patterns, causing the catchments to dry before the next rainy season;

(iii) increased reliance on alternative and often costly water sources during drought periods;

(iv) livestock stress and declining household resilience due to recurring water shortages;

(v) contamination and sanitation concerns arising from open access by humans and livestock, exacerbated by the absence of perimeter fencing, silt traps, and controlled livestock watering points;

(vi) strong community support for rehabilitation through excavation to standardized design dimensions, construction of improved embankments, installation of silt traps, livestock troughs, fencing, kiosks, and other auxiliary structures to improve water quality and operational management;

(vii) concerns regarding construction-phase safety risks, particularly for children and livestock during excavation activities; and

(viii) strong interest in prioritization of local labor during implementation and capacity building for operation and maintenance (O&M), with Water Catchment Committee members expressing readiness to assume long-term management responsibilities.

Communities in both villages affirmed their willingness to facilitate construction activities, support site access, cooperate with contractors, and strengthen Water Committee oversight following rehabilitation.

## 8.3 Key Issues Raised and How They Are Addressed

Participants in both Shimbiroole and Sirinley raised several priority concerns during consultations, including persistent dry-season water shortages caused by reduced storage capacity and siltation, sanitation risks due to uncontrolled access to the open basins, construction-phase safety risks, potential temporary water disruptions during excavation, requests for transparent local labor recruitment, and the need for clear communication regarding the Grievance Mechanism (GM) and SEA/SH reporting channels.

These concerns have been addressed through:

I. excavation and rehabilitation of each catchment to the proposed standardized design dimensions to significantly increase storage capacity and enhance dry-season reliability;

II. installation of perimeter fencing, controlled livestock troughs, and auxiliary structures (including silt traps and kiosks where required) to improve hygiene and reduce contamination risks;

III. implementation of construction safety measures including temporary fencing, warning signage, controlled access, and community awareness sessions in line with ESS4 requirements;

IV. scheduling excavation works preferably during the dry season, provision of 48–72 hours advance community notification, and temporary water access arrangements where necessary;

V. transparent local recruitment procedures aligned with the Labor Management Procedures (LMP);

VI. establishment and dissemination of a functional project-level GM at community and PIU levels in line with ESS10; and

VII. enforcement of Codes of Conduct, SEA/SH awareness sessions, and confidential survivor-centered reporting pathways.

All consultation forms, attendance sheets, photographic records, and contact details of participants are included in Annexes 4a, 4b, and 4c.

A summary of meetings held with stakeholders is presented in Table 7 below.

*Table 7: Stakeholder Meeting Summary*

| Date | Stakeholder Group | Location | Purpose | Main Points Raised | Answers Provided |
|---|---|---|---|---|---|
| 10/10/2025 | Jubaland MoAI-JS and Baardheere District Authorities | Baardheere – MoAI Office | Review proposed scope of works and confirm alignment with district priorities | Deteriorated water infrastructure; need for rehabilitation and expansion; coordination roles; | - Confirmed prioritization under S-FSRP. - Endorsed rehabilitation and |

| | | | | | |
|---|---|---|---|---|---|
| | | | | security support; environmental compliance | expansion of water catchments.<br>- Agreed on inclusion of auxiliary structures (fencing, silt traps, livestock troughs).<br>- Clarified coordination roles among MoAI-JS, FAO, PIU, and District Administration. |
| 17–18/11/2025 | Community Representatives (Elders, Women, Youth, Water Committees, IDPs, Pastoralists) | Shimbiroole and Sirinley Villages | Environmental and Social screening and field assessment | Severe siltation and reduced capacity; drought impacts; sanitation concerns; safety risks; temporary water disruption concerns; employment expectations; need for O&M training | - Confirmed excavation and expansion to standardized design dimensions.<br>- Assured installation of fencing, livestock troughs, and auxiliary structures.<br>- Confirmed construction safety measures.<br>- Agreed on dry-season scheduling and advance notification.<br>- Confirmed local recruitment aligned with LMP.<br>- Explained GM and SEA/SH reporting mechanisms. |

Minutes and attendance sheets are provided in Annexes 4a, 4b, and 4c.

## 8.4 Information Disclosure

Once approved, the ESMP will be shared with the Jubaland Ministry of Agriculture and Irrigation, the State PIU, and community representatives in the two villages. Copies will be displayed at the MoAI office in Baardheere and at public gathering points in Shimbiroole and Sirinley villages, including Water Catchment Committee offices and village meeting areas.

Prior to construction, the project team will conduct community awareness sessions in each village to explain the scope of works, excavation timelines, temporary access restrictions, safety measures around deepened catchments, local

recruitment procedures, and procedures for submitting grievances. The ESMP will also be submitted to the NPCU and the World Bank for broader public disclosure.

This approach ensures continuous community access to project information and maintains a transparent and inclusive platform for feedback throughout implementation.

# 9. Grievance Mechanism (GM)

The Grievance Mechanism (GM) provides an accessible and transparent process for community members, workers, and other stakeholders to raise concerns related to the subprojects' rehabilitation. Its objectives are to enable timely and fair resolution of issues, strengthen communication between the project and the community, identify recurring concerns that may require adjustments to project implementation, provide confidential channels for sensitive complaints including SEA/SH, and ensure that no one is excluded from project benefits due to fear of retaliation.

## 9.1 GM Structure and Process

The GM follows a simple pathway that prioritizes resolving issues as close as possible to the community level. Complaints may be submitted verbally or in writing to the Water User Committee focal persons, the Jubaland MoAI PIU representative, FAO field staff, the contractor's environmental or OHS officer, or trusted community leaders. Each concern is recorded in the SFSRP GM register or the standard digital template used across the project.

Once a grievance is received, the responsible focal point acknowledges receipt ordinarily within 48 hours and conducts an initial assessment to determine the nature and severity of the issue. Minor matters such as noise, disturbance, or simple clarifications can often be resolved immediately at this stage. Issues requiring further investigation are reviewed jointly by the State PIU and FAO, and where necessary, the contractor. A proposed resolution is typically provided within 7 to 14 days, depending on complexity. If a matter cannot be resolved locally or if the complainant remains dissatisfied, it may be escalated to the NPCU or, for serious or unresolved cases, to the World Bank's Grievance Redress Service. After a resolution is agreed upon, the case is formally closed in the GM register. All GM tools, registers, and standard complaint templates referenced in this section are provided in *Annex 6*: Grievance Mechanism Tools and Templates

## 9.2 Handling of SEA/SH-Related Cases

Complaints involving gender-based violence, sexual exploitation, or harassment follow a confidential survivor-centered process. They are reported directly to the designated GBV focal point or through any confidential channel, without requiring personal details or written statements. Such cases are never handled by community leaders or recorded with identifying information. The GBV focal point immediately refers survivors to appropriate service providers and ensures their safety and dignity. All contractor workers are required to sign the Code of Conduct and undergo compulsory training on respectful behavior and SEA/SH prevention. Therefore, regular refresher trainings will be conducted, and sanctions including suspension or termination are applied in cases of Code of Conduct violations, in line with contractual obligations and national law.

## 9.3 GM Accessibility and Communication

The mechanism is designed to be easily accessible. Stakeholders may submit grievances directly to WUC or PIU focal points, through phone calls or written submissions, via designated complaint boxes in public locations, or verbally during mobilization and community meetings. FAO field teams also receive complaints during supervision missions. Information on GM procedures will be shared regularly in community sessions, displayed on notice boards, and reinforced during pre-construction awareness activities. Dissemination of GM information in local languages, engagement of female focal points, separate confidential channels for SEA/SH cases (including hotline numbers), targeted outreach to women, youth, IDPs, and persons with disabilities, and monitoring of GM accessibility using sex- and vulnerability-disaggregated data.

## 9.4 Roles and Responsibilities

Community representatives and the Water User Committee serve as the first point of contact and support the receipt, recording, and referral of grievances. All grievances will be acknowledged within five (5) working days of receipt and assessed for resolution. The Jubaland MoAI PIU maintains the official Grievance Mechanism (GM) register, ensures proper documentation of each case (including the nature of the complaint, actions taken, timelines, and outcomes), coordinates follow-up actions, and communicates resolutions to complainants within fifteen (15) working days, unless the case requires additional investigation. FAO provides technical guidance, participates in investigations as needed, and verifies that corrective actions have been effectively implemented. The contractor is responsible for addressing grievances related to construction activities, labor conditions, occupational health and safety, and worker conduct, in accordance with the Labor Management Procedures. All complainants are protected against retaliation, and grievances may be submitted anonymously if desired.

Sensitive complaints, including those related to Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH), will be handled through separate, confidential, and survivor-centered channels (see the full guidelines & Steps in Annex 6), using trained focal points and referral pathways, without requiring disclosure to community structures. Escalated or unresolved cases are referred to the NPCU, which oversees higher-level resolution and reports significant grievances to the World Bank in line with ESF requirements. The GM will be subject to periodic performance monitoring and reporting, including analysis of grievance types, resolution rates, and timelines, using sex- and vulnerability-disaggregated data to assess accessibility and effectiveness of the mechanism.

## 9.5 Monitoring, Reporting, and Improvement

The GM is monitored continuously to track the nature of complaints, their frequency, and the time taken to resolve them. The State PIU prepares monthly summaries for FAO, which are consolidated into NPCU's quarterly environmental and social performance reports to the World Bank. As implementation progresses, the project team will review the mechanism's performance and introduce improvements where needed, including additional training, enhanced community communication, or adjustments to reporting tools.

# 10. ESMP Implementation Budget.

The Environmental and Social Management Plan (ESMP) includes costs associated with safeguards compliance, occupational health and safety (OHS), community engagement, waste management, monitoring, and reporting. For this subproject, the ESMP budget is calculated *at* 3 to 5% *of the total contract price***.**

*Table 7:ESMP Budget Breakdown*

| **ESMP Component** | **Description of Activities Covered** | **Estimated Cost (USD)** |
|---|---|---|
| 1. OHS Implementation | PPE for workers, safety signage, fencing, first-aid kits, heat-stress measures, daily toolbox talks | 2,526.40 |
| 2. Environmental Measures | Waste management, spoil disposal, dust suppression, erosion controls, spill-prevention materials | 2,391.10 |
| 3. Social Safeguards | Community awareness, GBV/SEA/SH messaging, SEA/SH focal point support, community safety measures | 1,076.70 |
| 4. GM Management | Complaint boxes, hotline operation, GM registers, documentation and visibility materials | 572.30 |

| | | |
|---|---|---|
| 5. Monitoring & Reporting | FAO/PIU joint monitoring, reporting tools, compliance verification, field follow-ups | 1,476.00 |
| 6. Stakeholder Engagement (SEP) | Community consultations, meetings, disclosure materials | 842.50 |
| 7. Capacity Building | Training on ESF, OHS, LMP, SEA/SH, and GM for contractors, workers, and PIU staff | 1456.90 |
| **Total ESMP Cost (Per Catchment)** | | **10,341.90** |
| **Cluster Total (3 Catchments)** | | **20,683.80 USD** |

**Note:** The ESMP implementation budget of USD 10, 341.90 per subproject is embedded within the contractor's contract price and covers site-level environmental and social mitigation measures, including OHS provisions, environmental controls, GM implementation, stakeholder engagement, and capacity building at the site level. Supervision, compliance verification, training of FAO and PIU staff, and institutional safeguards oversight are financed separately under the FAO Technical Assistance Agreement and the PIU operational budget and are therefore not included in the contractor's ESMP allocation.

## 11. References:


1. FAO (2023). *ESIA for Baardheere Flood Protection and Irrigation Rehabilitation – SFSRP.* Mogadishu: FAO Somalia.
2. FAO (2023). Simplified Environmental and Social Management Plan (ESMP) for Canal Rehabilitation in Southwest State, Jubaland, and HirShabelle. FAO Somalia
3. FAO SWALIM (2021). *Hydrological Data and Flood Risk Mapping for the Shabelle Basin.* Nairobi: FAO SWALIM.
4. MoAI (2022). *Shabelle River Basin Flood and Irrigation Profile.* Mogadishu: Ministry of Agriculture and Irrigation.
5. MoAI (2025) Environmental and Social Management Plan (ESMP): Construction of Office Building for the Ministry of Agriculture and Irrigation (MoAI)
6. MoEWR (2022). *Somalia National Environmental Outlook.* Mogadishu: Ministry of Environment and Water Resources.

## Annex 1A: Environmental and Social Screening – Shimbiroole Water Catchment

| | | | |
|---|---|---|---|
| Project Name | Somalia Food System Resilient project (SFSRP) (P177816) | | |
| Project Description | This project, under the Somalia Food Systems Resilience Program (S-FSRP), involves the rehabilitation and upgrading of the existing Shimbiroole water catchment in Shimbiroole Village, Baardheere District, Jubaland State, to restore and expand critical water storage infrastructure, improve access to water for domestic and livestock use, and enhance community resilience to prolonged drought and rainfall variability. The intervention includes excavation of the existing catchment to dimensions of 100 m × 90 m × 4 m depth to increase storage capacity from approximately 272 $m^3$ to about 27,000 $m^3$, together with construction of auxiliary structures including a silt trap, spillway, solar-powered pumping system, elevated storage tank, livestock watering troughs, fencing, and associated facilities. Based on the environmental and social screening, the project carries an overall Moderate Risk rating due primarily to temporary construction-related impacts such as soil erosion, embankment instability, dust generation, community safety risks, and occupational health and safety concerns, which will be mitigated through implementation of a site-specific Environmental and Social Management Plan (ESMP). | | |
| Prepared By | Shuaib Muse Cidhere | Date of Preparation | **18/11/2025** |
| Approved By | | Date of Approval | |

| No | Question | Yes | No | E&S risk rating, -Low, Moderate, Substantial & High | Documents Required | Remarks/Comments |
|---|---|---|---|---|---|---|
| | ***ESS1: Assessment and Management of Environmental and Social Risks*** | | | | | |
| 1 | Does the project affect downstream water flows? | | No | Low | ESMP | The sub-project is new, so, there will be no interruption during implementation. |
| 2 | Does it require clearing of trees, pasture/browse? | Yes | | Low | ESMP | Little vegetations along the canal banks. |
| 3 | Is an Environmental and/or Social Assessment required? | Yes | | Moderate | ESMP | ESMP to cover OHS, waste, community safety. |
| 4 | Is there a risk of diversion of project benefits? | Yes | | Moderate | SEP + GM | Possible during temporary water disruptions. |
| 5 | Is there a risk of lack of monitoring due to remoteness/insecurity? | | No | Moderate | SMP | Liaising with local authorities while considering Baardheere/ Somali's general context. |
| 6 | Will the project generate dust, noise, or air pollution? | Yes (minor) | | Low | ESMP | Manage by water spraying & restricting to daytime works. |
| | ***ESS2: Labour and Working Conditions*** | | | | | |
| 7 | Any risk of child/forced labour? | | No | Low | LMP | Community-based monitoring. |
| 8 | Does the activity include construction? | Yes | | Moderate | ESMP | Works involve canal excavation. |
| 9 | Risk of lacking OHS for workers? | Yes | | Moderate | OHS Plan | Toolbox talks, PPE, safe procedures. |
| 10 | Are workers provided PPE? | Yes (mandatory) | | Moderate | OHS Plan | Helmets, boots, gloves, vests. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | Are workers trained on safety/machinery? | Yes (mandatory) | | Moderate | OHS Plan | Induction + toolbox training. |
| 12 | Risk of delayed/underpayment? | Yes (Possible) | | Moderate | LMP | Ensure fair contracts, monitor payments. |
| 13 | Are women equally included in work opportunities? | Yes (to be ensured) | | Moderate | LMP + GBV Plan | Promote equal access; monitor gender inclusion. |
| | **ESS3: Resource Efficiency and Pollution Prevention** | | | | | |
| 14 | Will the project use large volumes of materials? | Yes | | Low | ESMP | Mainly soil/water for excavation. |
| 15 | Will it use water reducing community supply or water during or after construction, which will reduce the local availability of ground water and surface water? | | No | Low | ESMP | River has sufficient flow; use mainly for curing/dust suppression. |
| 16 | Will it create solid/vegetation wastes? | Yes | | Low | WMP | Spoil & vegetation debris cleared in/around the canal banks |
| 17 | Will it create hazardous waste (fuels, oils)? | Yes (fuels/lubricants) | | Moderate | ESMP + WMP | Store in bunded areas far from canal; spill kits available. |
| 18 | Will it result in wastewater discharges? | | No | Low | ESMP | Canal follow water and rainwater may disturb the excavation. Use settling pits before release. |
| 19 | Will it disturb flora/fauna? | | No | Low | – | Agricultural setting; no critical habitats nearby. |
| 20 | Will it require chemical inputs (pesticides/fertilizers)? | | No | Low | – | Not applicable. |
| 21 | Risk of accidental spills/leaks? | Yes | | Low | ESMP | Spill prevention measures, bunding, fire extinguishers. |
| | **ESS4: Community Health and Safety** | | | | | |
| 22 | Risk of community exposure to physical hazards (open excavation)? | Yes | | Moderate | ESMP | Fence off site, signage, and safe crossing points. |
| 23 | Risk of traffic/road accidents? | Low | | Low | ESMP | Limited traffic; monitor transport routes. |
| 24 | Risk of GBV/SEAH due to labor influx? | Yes | | Low | GBV Action Plan | Awareness, code of conduct, reporting channels. |
| 25 | Risk of spread of communicable diseases (due to labor influx, sanitation, or hygiene issues | Yes | | Moderate | ESMP | Hygiene, PPE, awareness campaigns. |
| 26 | Is an area where there has been insecurity incidents in the past 12 months? | | No | Moderate | Security Management Plan | Coordinate with authorities, proportionate security. |
| | **ESS5: Land Acquisition, Restrictions on Land Use, Resettlement** | | | | | |
| 27 | Will land be acquired? | | No | Low | – | Works within canal footprint. |
| 28 | Will households/assets be displaced? | | No | Low | | no assets/households be displaced |

| | | | | | | |
|---|---|---|---|---|---|---|
| 29 | Will there be restriction of access? | Yes | | Moderate | ESMP | Temporary during canal excavation and rehab/reconstruction of auxiliary structures |
| 30 | Risk of loss of income, assets or livelihoods? | | No | Low | | No risk of assets, income loss or livelihoods. |
| 31 | Involve significant excavations, demolition, and movement of earth, flooding, or other environmental changes? | Yes | | Low | ESMP | Excavation of canal bed only and |
| 32 | Will IDPs/vulnerable groups be affected? | | No | Low | SEP + GM | No direct, but ensure IDPs and vulnerable groups are included in consultation and compensation processes, if impacts arise. |
| | **ESS6: Biodiversity Conservation** | | | | | |
| 33 | Will the project affect sensitive ecosystems (e.g., intact natural forests, mangroves, wetlands) or threatened species? | | No | Low | – | Canal lies in agricultural setting; no critical habitats nearby. |
| 34 | Will it cause soil erosion/degradation? | Yes (minor) | | Low | ESMP | |
| 35 | Affect habitats/migration routes? | | No | Low | – | No wildlife corridors nearby. |
| 36 | Spread invasive species via spoil? | Yes | | Low | WMP | Approved spoil disposal only. |
| | **ESS7: Indigenous Peoples / Historically Underserved Communities** | | | | | |
| 37 | Are Indigenous Peoples or historically underserved traditional communities present in or around the project area? | | No | N/A | – | No such groups identified communities in Baardheere District/ Jubaland State or in generally Somalia |
| 38 | Could the project affect Indigenous Peoples' rights, lands, resources, or culture? | | No | N/A | – | Not applicable in Somalia context |
| | **ESS8: Cultural Heritage** | | | | | |
| 39 | Is site near archaeological/cultural heritage? | | No | Low | – | None identified. |
| 40 | Potential for chance finds? | Yes | Low | | Chance Find Procedure | Contractor to apply chance find protocol. |
| | **ESS9: Financial Intermediaries** | | | | | |
| 42 | Is the project implemented through financial intermediaries (banks, MFIs)? | | No | N/A | – | It is a direct rehabilitation activity, not financial intermediation. |
| 43 | Will financial intermediaries on-lend funds to sub-projects? | | No | N/A | – | Not applicable. |
| | **ESS10: Stakeholder Engagement and Disclosure** | | | | | |
| 44 | Risk of exclusion of women/youth in consultations? | Yes (Possible) | | Moderate | SEP | Ensure equal participation. |
| 45 | Lack of grievance redress? | | No | Low | GM | Functional GM in place. |
| 46 | Lack of government consultation? | Yes (generally weak) | | Moderate | SEP | Continuous engagement with local authorities. |
| 47 | Historical exclusion of disabled persons? | Yes (Possible) | | Moderate | SEP | Ensure accessibility & inclusion. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 48 | Lack of social baseline data? | Yes | | Moderate | ESMF | Use rapid participatory appraisal + FAO data. |
| | **EHS Screening (Environmental, Health & Safety)** | | | | | |
| 49 | Does intervention cause dust/noise/air pollution? | Yes (minor) | | Low | ESMP | Water spraying is required where necessary. |
| 50 | Large volumes of construction materials? | Yes | | Low | ESMP | Locally sourced where possible. |
| 51 | Solid waste properly managed? | Yes | | Low | WMP | Contractor to implement WMP. |
| 52 | Are chemicals (fuel/lube) properly handled? | Yes | | Moderate | ESMP | Bunded storage, away from the canal. |
| 53 | Wastewater discharge risks? | Yes (rainwater) | | Low | ESMP | Settling pits before release. |
| 54 | Excavations/tunnels? | Yes | | Low | ESMP | Open canal excavation, control spoil & restore canal banks. |
| 55 | Risk of over-exertion? | Yes | | Moderate | OHS Plan | Task rotation, rest breaks, hydration. |
| 56 | Slips & falls risk? | Yes | | Moderate | OHS Plan | Safe walkways, signage. |
| 57 | PPE availability? | Yes | | Moderate | OHS Plan | Enforced PPE use, monitoring. |
| 58 | Workers trained in OHS? | Yes | | Moderate | OHS Plan | Toolbox talks, induction. |
| 59 | High-risk activities? | Yes | | Moderate | OHS Plan | Excavation, machinery, working near water; mitigation required. |
| 60 | Traffic Risks? | Yes | | Moderate | OHS Plan | Temporary – Community (pedestrian), workers and trucks will require safe paths near rehab/reconstructing activities during implementation. |

| **E&S Screening** | **Results and Recommendation** | | |
|---|---|---|---|
| Screening Results:<br>Summary of Critical Risks and Impacts Identified | **Risk/Impact** | **Individual Risk/ Impact Rating** | **Mitigation**<br>At the end of the screen process, tabulate the mitigation measures in an ESMP Format (see below) |
| | **Moderate** | **C** | **Summary of Screening Result Justification** |
| Is Additional Assessment Necessary?<br>Evaluate the Risks/Impacts and reflect on options (see below) | **Screening Result** | | |
| | - Environmental and/or Social Assessment required where project is undertaken<br>- Water interruptions during excavation and rehab/reconstruction of auxiliary structures<br>- Soil Erosion and Degradation<br>- Community Health and Safety<br>- Worker Health and Safety (OHS)<br>- Noise from construction machinery and culvert construction may disturb nearby farmers and workers and prolonged exposure could cause hearing issues for laborers<br>- Gender/social exclusion risks | | Mitigation measures will follow **CERC ESMF**:<br>- SEP<br>- GM<br>- SMP<br>- LMP<br>- OHS<br>- SMP<br>- GBV Action Plan |
| | No ESIA is required. | | |

| | | |
|---|---|---|
| | | **This project was classified as Category C- Moderate** |
| | No ESIA & full ESMP is required | **Simplified ESMP will be needed** |

## Annex 1B: Environmental and Social Screening – Sirinley Water Catchment

| | | | |
|---|---|---|---|
| **Project Name** | Somalia Food System Resilient project (SFSRP) (P177816) | | |
| **Project Description** | This project, under the Somalia Food Systems Resilience Program (S-FSRP), involves the rehabilitation and upgrading of the existing Sirinley water catchment in Sirinley Village, Baardheere District, Jubaland State, to restore and expand critical water storage infrastructure, improve access to water for domestic and livestock use, and enhance community resilience to prolonged drought and rainfall variability. The intervention includes excavation of the existing catchment to dimensions of 100 m × 90 m × 3 m depth to increase storage capacity from approximately 83 $m^3$ to about 27,000 $m^3$, together with construction of auxiliary structures including a silt trap, spillway, solar-powered pumping system, elevated storage tank, livestock watering troughs, fencing, and associated facilities. Based on the environmental and social screening, the project carries an overall Moderate Risk rating due primarily to temporary construction-related impacts such as soil erosion, embankment instability, dust generation, community safety risks, and occupational health and safety concerns, which will be mitigated through implementation of a site-specific Environmental and Social Management Plan (ESMP). | | |
| **Prepared By** | Shuaib Muse Cidhere | Date of Preparation | **18/11/2025** |
| Approved By | | Date of Approval | |

| No | Question | Yes | No | E&S risk rating, -Low, Moderate, Substantial & High | Documents Required | Remarks/Comments |
|---|---|---|---|---|---|---|
| | ***ESS1: Assessment and Management of Environmental and Social Risks*** | | | | | |
| 1 | Does the project affect downstream water flows? | | No | Low | ESMP | The sub-project is new, so, there will be no interruption during implementation. |
| 2 | Does it require clearing of trees, pasture/browse? | Yes | | Low | ESMP | Little vegetations along the canal banks. |
| 3 | Is an Environmental and/or Social Assessment required? | Yes | | Moderate | ESMP | ESMP to cover OHS, waste, community safety. |
| 4 | Is there a risk of diversion of project benefits? | Yes | | Moderate | SEP + GM | Possible during temporary water disruptions. |
| 5 | Is there a risk of lack of monitoring due to remoteness/insecurity? | | No | Moderate | SMP | Liaising with local authorities while considering Baardheere/ Somali's general context. |
| 6 | Will the project generate dust, noise, or air pollution? | Yes (minor) | | Low | ESMP | Manage by water spraying & restricting to daytime works. |
| | ***ESS2: Labour and Working Conditions*** | | | | | |
| 7 | Any risk of child/forced labour? | | No | Low | LMP | Community-based monitoring. |
| 8 | Does the activity include construction? | Yes | | Moderate | ESMP | Works involve canal excavation. |
| 9 | Risk of lacking OHS for workers? | Yes | | Moderate | OHS Plan | Toolbox talks, PPE, safe procedures. |
| 10 | Are workers provided PPE? | Yes (mandatory) | | Moderate | OHS Plan | Helmets, boots, gloves, vests. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | Are workers trained on safety/machinery? | Yes (mandatory) | | Moderate | OHS Plan | Induction + toolbox training. |
| 12 | Risk of delayed/underpayment? | Yes (Possible) | | Moderate | LMP | Ensure fair contracts, monitor payments. |
| 13 | Are women equally included in work opportunities? | Yes (to be ensured) | | Moderate | LMP + GBV Plan | Promote equal access; monitor gender inclusion. |
| | **ESS3: Resource Efficiency and Pollution Prevention** | | | | | |
| 14 | Will the project use large volumes of materials? | Yes | | Low | ESMP | Mainly soil/water for excavation. |
| 15 | Will it use water reducing community supply or water during or after construction, which will reduce the local availability of ground water and surface water? | | No | Low | ESMP | River has sufficient flow; use mainly for curing/dust suppression. |
| 16 | Will it create solid/vegetation wastes? | Yes | | Low | WMP | Spoil & vegetation debris cleared in/around the canal banks |
| 17 | Will it create hazardous waste (fuels, oils)? | Yes (fuels/lubricants) | | Moderate | ESMP + WMP | Store in bunded areas far from canal; spill kits available. |
| 18 | Will it result in wastewater discharges? | | No | Low | ESMP | Canal follow water and rainwater may disturb the excavation. Use settling pits before release. |
| 19 | Will it disturb flora/fauna? | | No | Low | – | Agricultural setting; no critical habitats nearby. |
| 20 | Will it require chemical inputs (pesticides/fertilizers)? | | No | Low | – | Not applicable. |
| 21 | Risk of accidental spills/leaks? | Yes | | Low | ESMP | Spill prevention measures, bunding, fire extinguishers. |
| | **ESS4: Community Health and Safety** | | | | | |
| 22 | Risk of community exposure to physical hazards (open excavation)? | Yes | | Moderate | ESMP | Fence off site, signage, and safe crossing points. |
| 23 | Risk of traffic/road accidents? | Low | | Low | ESMP | Limited traffic; monitor transport routes. |
| 24 | Risk of GBV/SEAH due to labor influx? | Yes | | Low | GBV Action Plan | Awareness, code of conduct, reporting channels. |
| 25 | Risk of spread of communicable diseases (due to labor influx, sanitation, or hygiene issues | Yes | | Moderate | ESMP | Hygiene, PPE, awareness campaigns. |
| 26 | Is an area where there has been insecurity incidents in the past 12 months? | | No | Moderate | Security Management Plan | Coordinate with authorities, proportionate security. |
| | **ESS5: Land Acquisition, Restrictions on Land Use, Resettlement** | | | | | |
| 27 | Will land be acquired? | | No | Low | – | Works within canal footprint. |
| 28 | Will households/assets be displaced? | | No | Low | | no assets/households be displaced |

| | | | | | | |
|---|---|---|---|---|---|---|
| 29 | Will there be restriction of access? | Yes | | Moderate | ESMP | Temporary during canal excavation and rehab/reconstruction of auxiliary structures |
| 30 | Risk of loss of income, assets or livelihoods? | | No | Low | | No risk of assets, income loss or livelihoods. |
| 31 | Involve significant excavations, demolition, and movement of earth, flooding, or other environmental changes? | Yes | | Low | ESMP | Excavation of canal bed only and |
| 32 | Will IDPs/vulnerable groups be affected? | | No | Low | SEP + GM | No direct, but ensur IDPs and vulnerable groups are included in consultation and compensation processes, if impacts arise. |
| | **ESS6: Biodiversity Conservation** | | | | | |
| 33 | Will the project affect sensitive ecosystems (e.g., intact natural forests, mangroves, wetlands) or threatened species? | | No | Low | – | Canal lies in agricultural setting; no critical habitats nearby. |
| 34 | Will it cause soil erosion/degradation? | Yes (minor) | | Low | ESMP | |
| 35 | Affect habitats/migration routes? | | No | Low | – | No wildlife corridors nearby. |
| 36 | Spread invasive species via spoil? | Yes | | Low | WMP | Approved spoil disposal only. |
| | **ESS7: Indigenous Peoples / Historically Underserved Communities** | | | | | |
| 37 | Are Indigenous Peoples or historically underserved traditional communities present in or around the project area? | | No | N/A | – | No such groups identified communities in Beledweyne District/ Hirshabeele State or in generally Somalia |
| 38 | Could the project affect Indigenous Peoples' rights, lands, resources, or culture? | | No | N/A | – | Not applicable in Somalia context |
| | **ESS8: Cultural Heritage** | | | | | |
| 39 | Is site near archaeological/cultural heritage? | | No | Low | – | None identified. |
| 40 | Potential for chance finds? | Yes | Low | | Chance Find Procedure | Contractor to apply chance find protocol. |
| | **ESS9: Financial Intermediaries** | | | | | |
| 42 | Is the project implemented through financial intermediaries (banks, MFIs)? | | No | N/A | – | It is a direct rehabilitation activity, not financial intermediation. |
| 43 | Will financial intermediaries on-lend funds to sub-projects? | | No | N/A | – | Not applicable. |
| | **ESS10: Stakeholder Engagement and Disclosure** | | | | | |
| 44 | Risk of exclusion of women/youth in consultations? | Yes (Possible) | | Moderate | SEP | Ensure equal participation. |
| 45 | Lack of grievance redress? | | No | Low | GM | Functional GM in place. |
| 46 | Lack of government consultation? | Yes (generally weak) | | Moderate | SEP | Continuous engagement with local authorities. |
| 47 | Historical exclusion of disabled persons? | Yes (Possible) | | Moderate | SEP | Ensure accessibility & inclusion. |

| | | | | | | |
|---|---|---|---|---|---|---|
| 48 | Lack of social baseline data? | Yes | | Moderate | ESMF | Use rapid participatory appraisal + FAO data. |
| | **EHS Screening (Environmental, Health & Safety)** | | | | | |
| 49 | Does intervention cause dust/noise/air pollution? | Yes (minor) | | Low | ESMP | Water spraying is required where necessary. |
| 50 | Large volumes of construction materials? | Yes | | Low | ESMP | Locally sourced where possible. |
| 51 | Solid waste properly managed? | Yes | | Low | WMP | Contractor to implement WMP. |
| 52 | Are chemicals (fuel/lube) properly handled? | Yes | | Moderate | ESMP | Bunded storage, away from the canal. |
| 53 | Wastewater discharge risks? | Yes (rainwater) | | Low | ESMP | Settling pits before release. |
| 54 | Excavations/tunnels? | Yes | | Low | ESMP | Open canal excavation, control spoil & restore canal banks. |
| 55 | Risk of over-exertion? | Yes | | Moderate | OHS Plan | Task rotation, rest breaks, hydration. |
| 56 | Slips & falls risk? | Yes | | Moderate | OHS Plan | Safe walkways, signage. |
| 57 | PPE availability? | Yes | | Moderate | OHS Plan | Enforced PPE use, monitoring. |
| 58 | Workers trained in OHS? | Yes | | Moderate | OHS Plan | Toolbox talks, induction. |
| 59 | High-risk activities? | Yes | | Moderate | OHS Plan | Excavation, machinery, working near water; mitigation required. |
| 60 | Traffic Risks? | Yes | | Moderate | OHS Plan | Temporary – Community (pedestrian), workers and trucks will require safe paths near rehab/reconstructing activities during implementation. |

| **E&S Screening** | **Results and Recommendation** | | |
|---|---|---|---|
| Screening Results:<br>Summary of Critical Risks and Impacts Identified | **Risk/Impact** | **Individual Risk/ Impact Rating** | **Mitigation**<br>At the end of the screen process, tabulate the mitigation measures in an ESMP Format (see below) |
| | **Moderate** | **C** | **Summary of Screening Result Justification** |
| Is Additional Assessment Necessary?<br>Evaluate the Risks/Impacts and reflect on options (see below) | **Screening Result** | | |
| | - Environmental and/or Social Assessment required where project is undertaken<br>- Water interruptions during excavation and rehab/reconstruction of auxiliary structures<br>- Soil Erosion and Degradation<br>- Community Health and Safety<br>- Worker Health and Safety (OHS)<br>- Noise from construction machinery and culvert construction may disturb nearby farmers and workers and prolonged exposure could cause hearing issues for laborers<br>- Gender/social exclusion risks | | Mitigation measures will follow **CERC ESMF**:<br>- SEP<br>- GM<br>- SMP<br>- LMP<br>- OHS<br>- SMP<br>- GBV Action Plan |
| | No ESIA is required. | | |

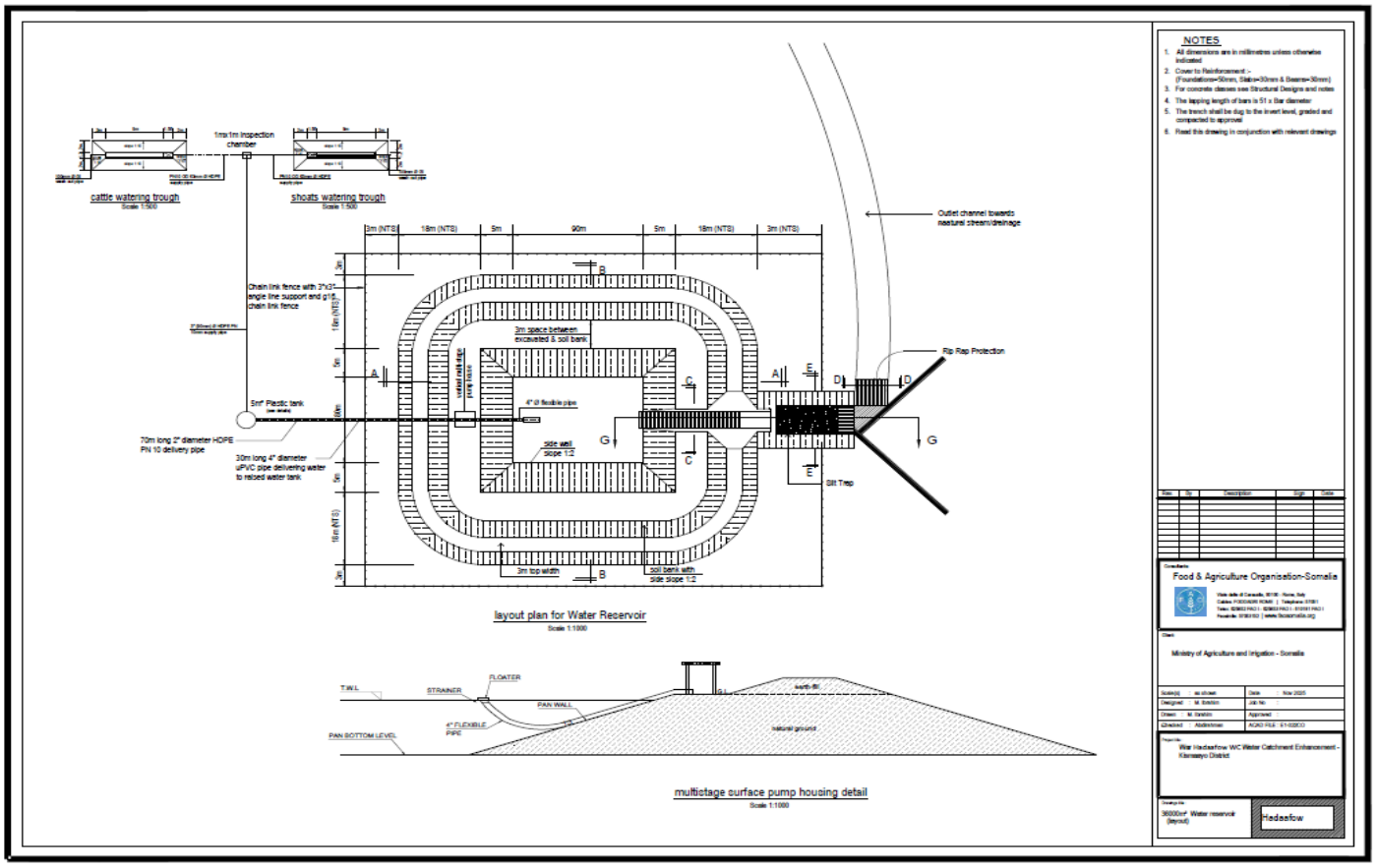
| | | |
|---|---|---|
| | | **This project was classified as Category C- Moderate** |
| | No ESIA & full ESMP is required | **Simplified ESMP will be needed** |

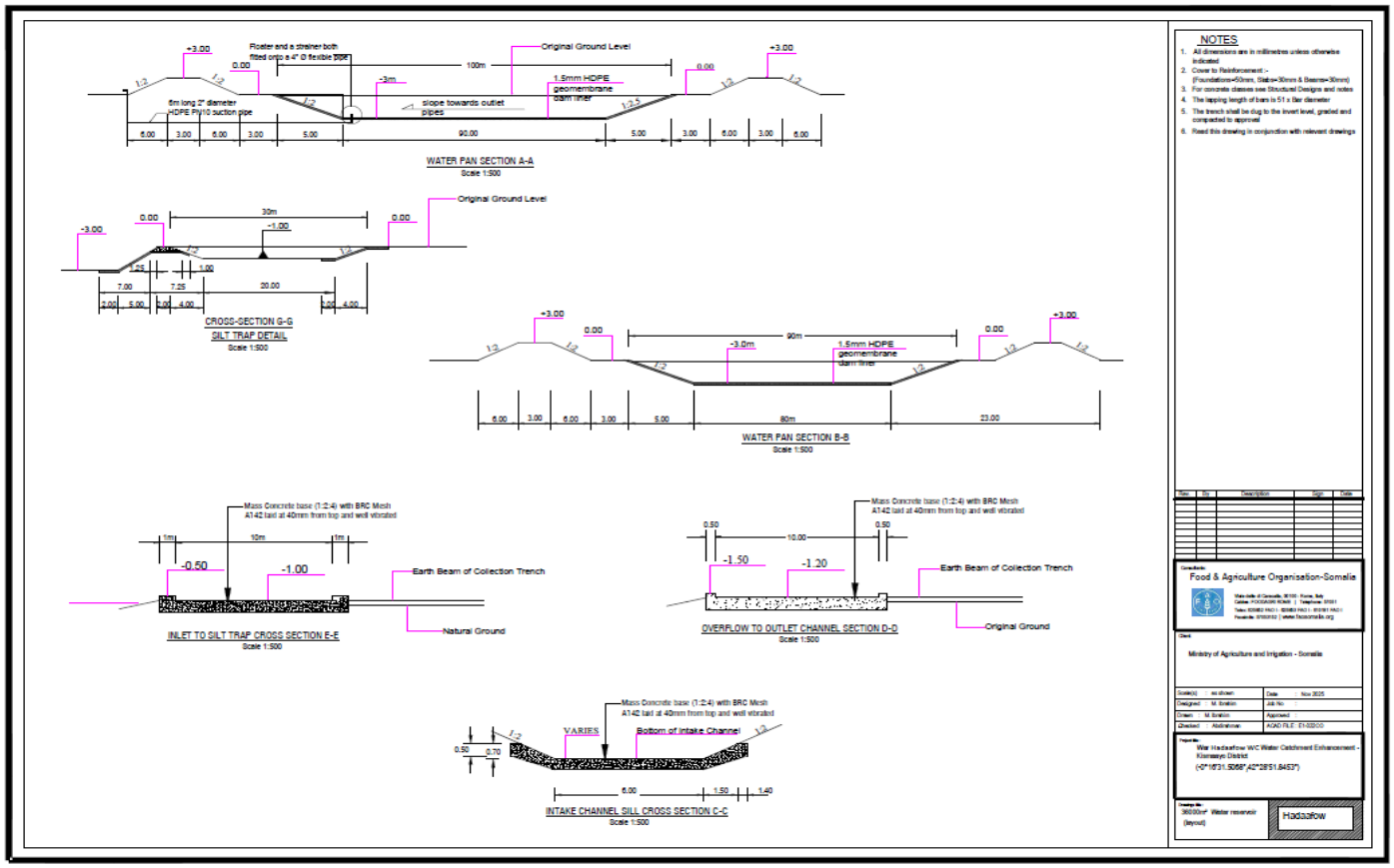
## Annex 2: Government Land Ownership Confirmation

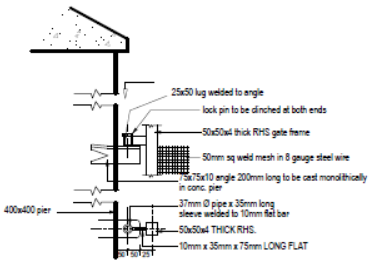
This annex contains the official land ownership confirmation letter issued by the Jubaland Ministry of Agriculture and Irrigation, certifying that the 4 water catchments in the letter and located in Baardheere District is situated on public land fully owned and managed by the Jubaland State Government. The letter confirms that no private land acquisition, claims, or involuntary resettlement are associated with the proposed rehabilitation works, in compliance with *World Bank ESS5.*

Badere Water Catchment Land own

# Annex 3: Drawings & Sections Layouts

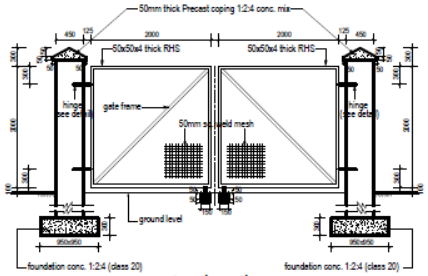




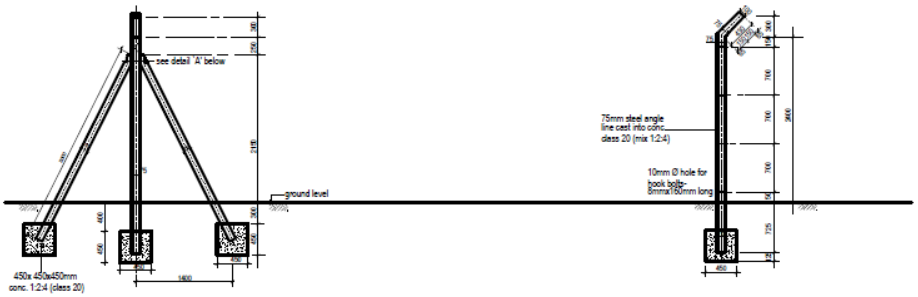

hinge details

NTS




gate elevation

NTS




details of straining pole for chain link fence at 30m centres

NTS

details of single pole at 3m c/c

NTS

NOTES

1. All dimensions are in millimetres unless otherwise indicated
2. Cover to Reinforcement :- (Foundations=50mm, Slabs=30mm & Beams=30mm)
3. For concrete classes see Structural Designs and notes
4. The lapping length of bars is 51 x Bar diameter
5. The trench shall be dug to the invert level, graded and compacted to approval
6. Read this drawing in conjunction with relevant drawings

| Rev | By | Description | Sign | Date |
|---|---|---|---|---|
| | | | | |

Consultants

Food & Agriculture Organisation-Somalia

Client

Ministry of Agriculture and Irrigation - Somalia

| | | | |
|---|---|---|---|
| Scale(s) | as shown | Date | Nov 2025 |
| Designed | M. Ibrahim | Job No | |
| Drawn | M. Ibrahim | Approved | |
| Checked | Abdirahman | AOAD FILE : 01-02CC | |

Project title

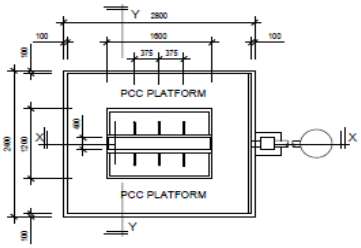
War Hadaafow WC Water Catchment Enhancement - Kismaayo District

(-0°16'31.5068",42°28'51.8453")

Drawing title

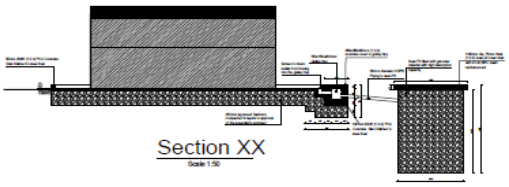
36000m³ Water reservoir (layout)

Hadaafow



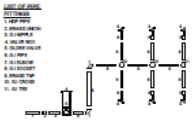

Plan View

Scale 1:50



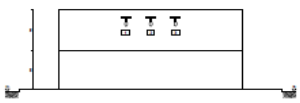
Section XX

Scale 1:50



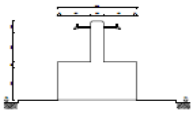
Pipes Layout

Scale 1:50



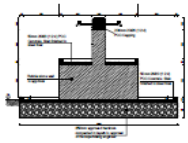
Front View

Scale 1:50



Side View

Scale 1:50



Section YY

Scale 1:50

NOTES

1. All dimensions are in millimetres unless otherwise indicated
2. Cover to Reinforcement :- (Foundations=50mm, Slabs=30mm & Beams=30mm)
3. For concrete classes see Structural Designs and notes
4. The lapping length of bars is 51 x Bar diameter
5. The trench shall be dug to the invert level, graded and compacted to approval
6. Read this drawing in conjunction with relevant drawings

| Rev | By | Description | Sign | Date |
|---|---|---|---|---|
| | | | | |

Consultants

Food & Agriculture Organisation-Somalia

Client

Ministry of Agriculture and Irrigation - Somalia

| | | | |
|---|---|---|---|
| Scale(s) | as shown | Date | Nov 2025 |
| Designed | M. Ibrahim | Job No | |
| Drawn | M. Ibrahim | Approved | |
| Checked | Abdirahman | AOAD FILE : 01-02CC | |

Project title

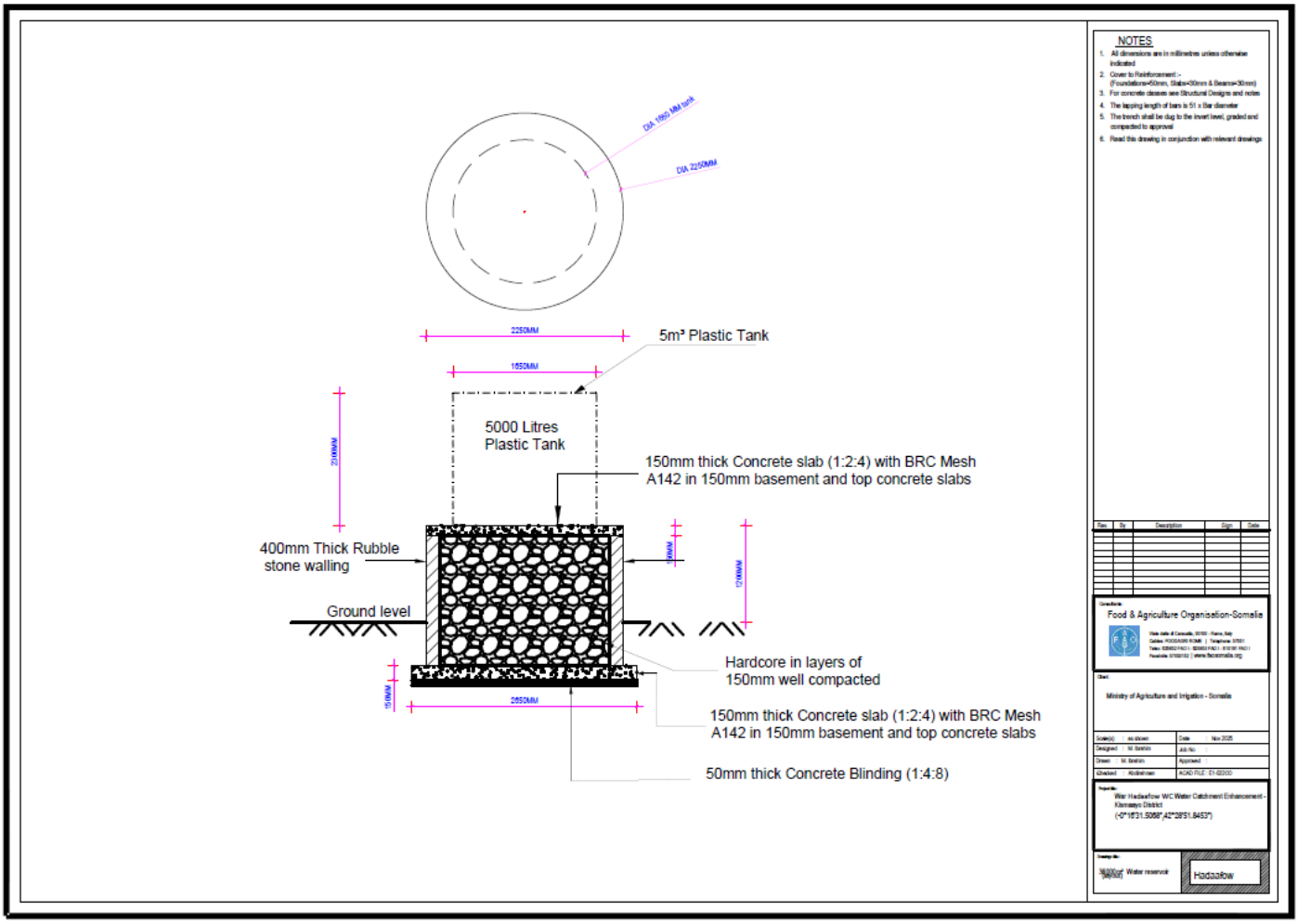
War Hadaafow WC Water Catchment Enhancement - Kismaayo District

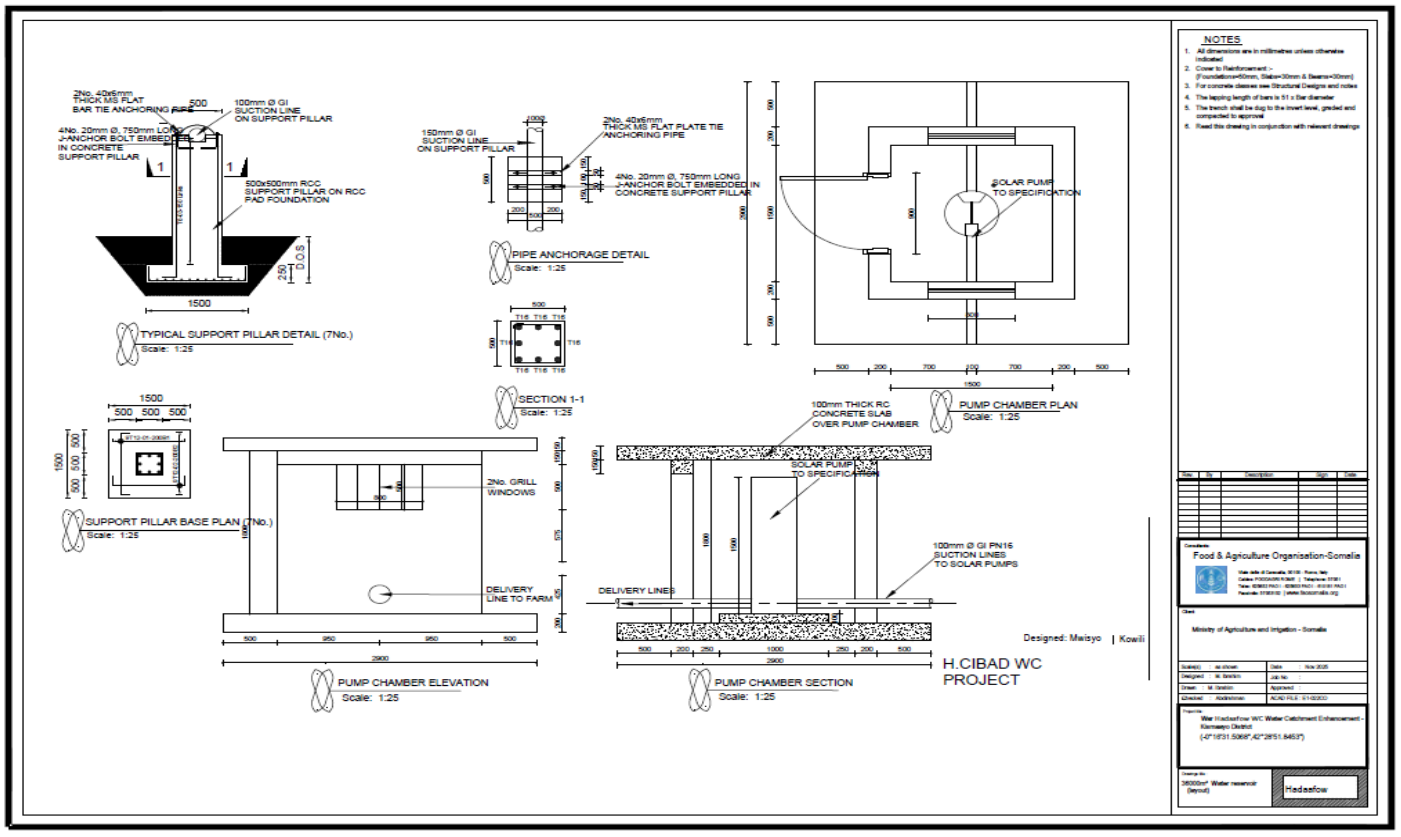
(-0°16'31.5068",42°28'51.8453")

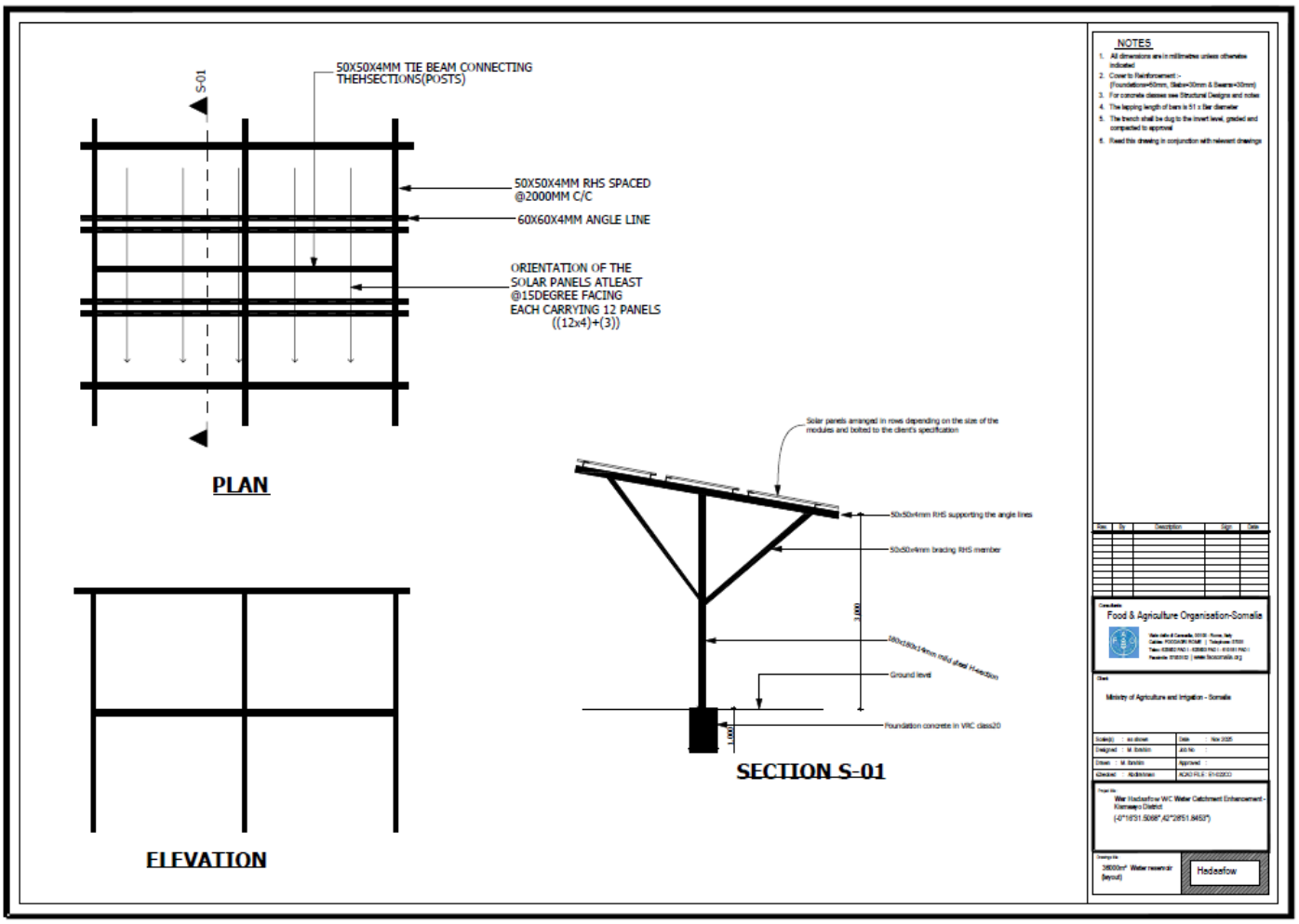
Drawing title

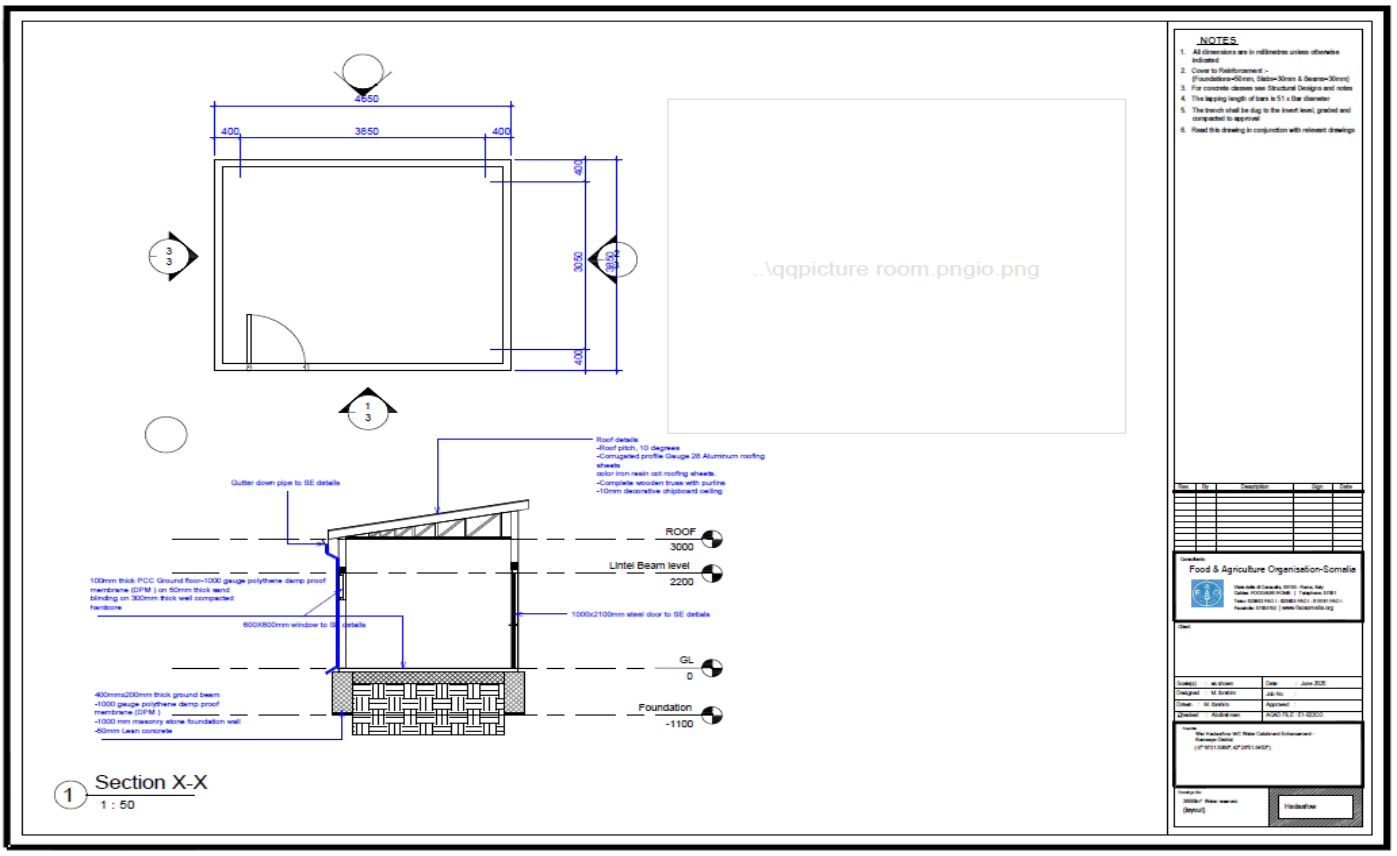
36000m³ Water reservoir (layout)

Hadaafow

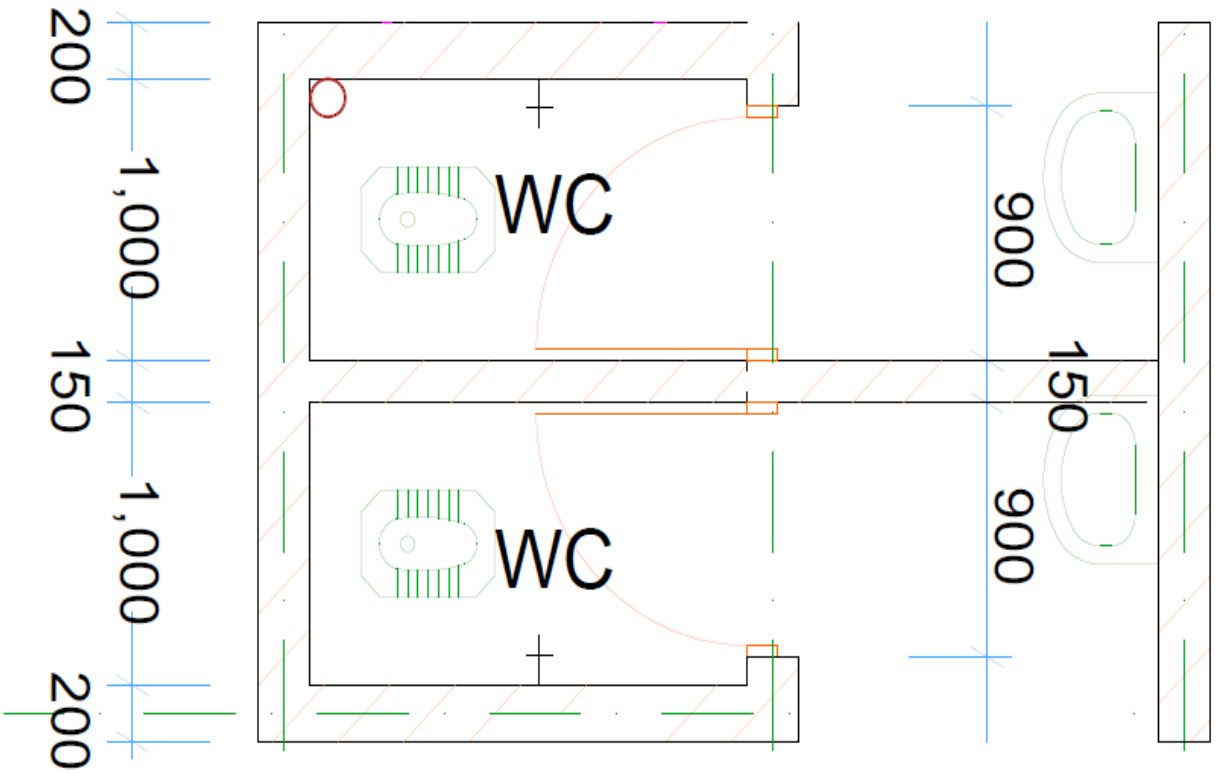




# External toilets



# Annex 4: Stakeholder Consultation Meeting Minutes and Attendances

## Annex 4a: Ministry Consultation & Meeting Minutes

1. **Consultation Date**: *10/10/2025*
2. **Sub-project Types:** Canals, Water-catchments & River embankments rehabilitation activities
3. **Specific Name of the Project:** FSRP Government Consultation
4. **Place of Consultation**: **State**: *Jubaland,* **Region**: *Lower Jubba*, **District**: *Bardere*, **Village** (Specific site): *Office of the MoAI-JS*

**Purpose of Consultation:** The consultation was organized to engage the Jubaland State Ministry of Agriculture and Irrigation (MoAI) and the Bardere District Administration regarding the planned river embankment and canal rehabilitation activities under the Somalia Food Systems Resilience Program (SFSRP).
The meeting aimed to:

- Discuss the current condition and prioritization of proposed rehabilitation sites, including irrigation pipelines, water-catchments, and river embankments, and gather input on any additions or exclusions.
- Identify institutional and community concerns, potential environmental and social risks, and appropriate mitigation measures in line with the World Bank Environmental and Social Standards (ESS).
- Confirm the needs, priorities, and potential contributions of regional and district authorities, as well as community-level support.
- Inform stakeholders about upcoming technical, environmental, and social data collection activities required for the ESMP, including information on affected households, command areas, pipeline conditions, breakage points, flood exposure, and availability of local construction materials.
- Discuss key data requirements for irrigation systems (current and potential command areas, number of beneficiary farmers, preferred pipeline type and diameter, condition of existing pipes, valves, chambers, and road crossings) and for river embankments (breached sections, overflow points, and erosion-prone areas), in alignment with MoAI-JS and district priorities.

5. **Consultation Time Started** 9:15

6. **Consultation Method:** *Interviewing and discussion* (**group discussions and individual interviews**)

**7. Consultation Agendas/ Issues:**

- Coordination mechanisms among Jubaland State MoAI, FAO/S-FSRP technical team, and future contractors to facilitate site access and smooth implementation.
- Rising river water levels during peak seasons and continued deterioration of weak embankment sections along the Jubba River.
- Community and government preferences for durable rehabilitation solutions, including pressurized HDPE pipeline systems, stone pitching, gabions, or compacted earth with vegetation cover, depending on site conditions and material availability.
- The importance of rehabilitating and upgrading intake structures to ensure reliable irrigation access, particularly after embankment elevation works.
- The need for proper drainage outlets to prevent waterlogging and stagnant water near agricultural lands.
- The importance of incorporating an elevated water tank at the highest elevation point along the prioritized pipeline canals to enable gravity-fed irrigation for downstream farmers.

**8. Additional Issues Raised During Consultation**

- Several irrigation pipelines and canals within the district were reported to be in poor or deteriorated condition.
- Multiple breached and weak sections were observed along river embankments, contributing to overflow and localized flooding.

- Both government representatives and community leaders emphasized the urgency of rehabilitating irrigation infrastructure to improve agricultural productivity and strengthen flood protection.

**9. Agreed Agendas/ Issues**

- The Jubaland State MoAI and the Bardere District Administration expressed full support for the rehabilitation of irrigation systems, water-catchments, and river embankments under the S-FSRP.
- Local authorities committed to providing security support and coordination during assessment, construction, and post-construction phases.
- It was agreed to incorporate an elevated water tank into the pipeline canal design to improve water distribution and equity for downstream users.
- All stakeholders agreed to cooperate fully with FAO/S-FSRP during implementation.
- The district administration committed to supporting communities in operation and maintenance (O&M) arrangements after rehabilitation.

**10. Disagreed Agenda/issues including Reasons for Disagreement**

- No major disagreements recorded

11. **Consultation Ended Time**: *15:30*

**Consultation Facilitators' Name & Role:** **Signature:**

1. Shuaib Muse Cidhere, FAO Civil Engineer ----------
2. Abdi Shugri Abdullahi, MoAI of JS, Community mobilizer ----------

*Table 8: Summary MoAI Meeting Minutes*

| S/No | Issue | Name of Participant Who Raised It | Response | Name / Institution Where Response Came From |
|---|---|---|---|---|
| 1 | Institutional coordination among Jubaland State MoAI, Baardheere District Administration, FAO/FSRP, and contractors | Mohamed Mursal Hersi | Full institutional coordination agreed | FAO/FSRP; Jubaland State MoAI |
| 2 | Poor condition of irrigation pipelines, water-catchments, and river embankments, including rising river levels and weak sections | Abdirashid Abdi | Rehabilitation and flood protection measures supported | Jubaland State MoAI |
| 3 | Need for durable, site-specific rehabilitation solutions for canals and embankments | Ismael Ali Ahmed | Site-appropriate solutions to be adopted | FAO/FSRP Technical Team |
| 4 | Need for intake structures, drainage outlets, and an elevated water tank to improve irrigation reliability | Mohamed Ibrahim Abdi | Intake, drainage, and water tank to be included in design | FAO/FSRP Technical Team |
| 5 | Security, implementation support, and post-construction operation and maintenance (O&M) | Shuaib Muse Cidhere | Security, cooperation, and O&M support confirmed | Baardheere District Administration; Jubaland State MoAI |

**Participants List/Attendance:**

Food and Agriculture Organization of the United Nations

Date: 11/10/2025

Table 3: Consultation Attendants/ Participants: MoAI & Jubaland Meeting

| No. | Name of Participants | Stakeholder(community/government) | Age | Sex | Position /Role | Mobil phone No | Signature/Thumb |
|---|---|---|---|---|---|---|---|
| 1 | Mohamed Mursal Hersi | MOAI | | M | DG | 615822169 | |
| 2 | Abdirashid Abdi | MOAI | | M | Advisor | 0619356864 | |
| 3 | Yahye Hussein Ali | FAO | | M | Eng | 0615942826 | |
| 4 | Shuaib Muse Cidhere | FAO | | M | Eng | 0616032842 | |
| 5 | Abdi Hirsi Guraad | MOAI | | M | Procur | 0615105407 | |
| 6 | Ismail Ali mohamed | MoAI | | M | Social | 0613130866 | |
| 7 | Mohamed Ibrahim Abdi | MOAI- | | M | M&E | 613020204 | |
| 8 | Abdirahman Bashir Dalin | FAO | | M | Quality Assurance officer | 0614-855562 | |

## **Annex 4B:** Community Consultation Minutes & Attendance – **Shimbiroole** Water Catchment

**Consultation Date**: *17/11/2025*
**Sub-project Type:** Water Catchment Rehabilitation
**Specific Name of the Project:** *Shimbiroole Water Catchments*
**Place of Consultation**: **State**: *Jubaland,* **Region:** Gedo, **District:** *Baardheere*, **Village (Specific site):** *Shimbiroole Village*
**Purpose of Consultation:**

The consultation was conducted to engage the Shimbiroole communities and the Water Catchment Committee regarding the planned rehabilitation works under the Somalia Food Systems Resilience Project (S-FSRP). The meeting aimed to:

- Discuss the current conditions and functionality of the existing water catchments and associated auxiliary structures.
- Identify potential environmental and social risks and proposed mitigation measures in line with the World Bank Environmental and Social Standards (ESS).
- Confirm community needs, priorities, and expected contributions during and after rehabilitation.
- Collect technical and socio-economic information to support assessment requirements, including current and projected storage capacity, number of beneficiary households and livestock, sanitation conditions, and the status of associated infrastructure such as elevated water tanks, silt traps, fencing, livestock water troughs, kiosks, and solar installations.
- Ensure inclusive participation of elders, women, youth, internally displaced persons (IDPs), and other vulnerable groups in accordance with the S-FSRP Stakeholder Engagement Plan (SEP).

**Consultation Method**

- The consultation was conducted through participatory discussions, including group meetings and individual interviews with elders, women, youth, IDPs, pastoralists, and Water Catchment Committee representatives.

**5 Consultation Time Started**: 12:30

*Table 9: Key Issues Raised, Responses, and Agreements – Shimbiroole Communities*

| Issues Raised | Raised By | Answer / Agreement Provided | Responded By (Officer / Institution) |
|---|---|---|---|
| Persistent shortage of drinking water for both households and livestock due to reduced storage capacity and prolonged drought conditions. | Elders, pastoralists, women representatives | Confirmed that excavation to proposed dimensions will significantly increase storage capacity of the catchment to improving water security and resilience during dry seasons. | FAO Technical Team |
| Poor condition of embankments, seepage, silt accumulation, and lack of auxiliary structures such as fencing, silt traps, livestock troughs, and kiosks. | Water Catchment Committee, elders | Agreed to rehabilitate embankments, excavate the catchment by increasing the size, install protective lining where required, construct silt traps, livestock troughs, fencing, kiosks, and associated structures to improve functionality and sanitation. | FAO / MoAI PIU |

| | | | |
|---|---|---|---|
| Sanitation concerns due to open access by people and livestock leading to potential contamination of stored water. | Women, youth, IDPs | Confirmed that perimeter fencing and controlled livestock trough points will be constructed to reduce contamination and improve public health protection. | FAO & PIU |
| Concerns about temporary water interruptions during excavation and construction works. | Community members (mixed groups) | Agreed that works will be scheduled preferably during the dry season, advance notice will be provided (48–72 hours), and temporary arrangements will be discussed if needed. | FAO / PIU |
| Safety risks for children and livestock during excavation and construction activities. | Women, elders | Confirmed that safety measures will include fencing, warning signage, controlled access, and community awareness sessions in line with ESS4 requirements. | FAO Env. Safeguard |
| Request for prioritization of local skilled and unskilled labor during implementation. | Youth, elders | Agreed that local labor will be prioritized in accordance with the Labor Management Procedures (LMP) and transparent recruitment processes. | PIU |
| Need for Water Catchment Committee training on operation and maintenance (O&M). | Water Catchment Committee members | Confirmed that capacity-building sessions will be conducted to strengthen O&M management and long-term sustainability. | FAO Technical Assistance / PIU |
| Request for additional long-term water sources such as boreholes. | Elders, pastoralists | Clarified that the current intervention focuses on catchment rehabilitation under S-FSRP; additional water sources may be considered under future programming subject to assessment and funding. | MoAI PIU / FAO |
| Need for clear communication and access to the Grievance Mechanism (GM). | Women, IDPs, youth | Confirmed that GM channels (community focal points, hotline, complaint boxes) will be operational and publicized in line with ESS10 and SEA/SH Action Plan. | FAO / PIU |

*Table 10: Summary of Shimbiroole Community Meeting Minutes*

| No | District | Location of Meeting | Dates of Meeting | No. of Elders | No. of Women | No. of Men | Main Issues Raised | Agreed Actions | Names of Attendees |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Baardheere | Shimbiroole Village | 17/11/2025 | 5 | 4 | 14 | Persistent water shortages; deteriorated embankments; | Full support for rehabilitation; prioritization of local labor; phased | (Full names, phone numbers, and |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | seepage and siltation; lack of fencing and auxiliary structures; construction safety concerns; need for improved communication . | implementation; enhanced water storage capacity; GM operationalization ; dry-season scheduling where feasible. | signatures attached below) |

**11. Disagreed Agenda/issues including Reasons for**

- No major disagreements were recorded. Some concerns regarding excavation scheduling and water disruptions were raised, but these were addressed by the commitment to phased works and advance community notifications.

**12. Consultation Ended Time**: *14:05*

**Consultation Facilitators' Name & Role:** **Signature:**

1. Shuaib Muse Cidhere, Civil Engineer ----------
2. Abdi-Shugri Abdullahi, Community Mobilizer ----------

**List of participants:**

- Shimbiraole Community Consultation

Food and Agriculture Organization of the United Nations

Date: 17-11-2025

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Iidle Muxumed Kaalmoy | Community | 67 | m | Chair Elder | 0617354634 |
| 2 | Axmed Cali Nuur | Community | 55 | M | Elder | 06180177888 |
| 3 | Axmed Mahad Sabtow | Community | 45 | M | Farmer | 0617555965 |
| 4 | Sahal Cali Guhead | Community | 48 | M | Farmer | 0615605967 |
| 5 | Dhuuxo Ibraahim Faarax | Community | 43 | f | farmer | 0617923952 |

## **Annex 4C:** Community Consultation Minutes & Attendance – **Sirinley** Water Catchment

**Consultation Date**: *18/11/2025*
**Sub-project Type:** Water Catchment Rehabilitation
**Specific Name of the Project:** *Sirinley Water Catchments*
**Place of Consultation**: **State**: *Jubaland,* **Region:** Gedo, **District:** *Baardheere*, **Village (Specific site):** *Sirinley Village*
**Purpose of Consultation:**

The consultation was conducted to engage the Sirinley communities and the Water Catchment Committee regarding the planned rehabilitation works under the Somalia Food Systems Resilience Project (S-FSRP). The meeting aimed to:

- Discuss the current conditions and functionality of the existing water catchments and associated auxiliary structures.
- Identify potential environmental and social risks and proposed mitigation measures in line with the World Bank Environmental and Social Standards (ESS).
- Confirm community needs, priorities, and expected contributions during and after rehabilitation.
- Collect technical and socio-economic information to support assessment requirements, including current and projected storage capacity, number of beneficiary households and livestock, sanitation conditions, and the status of associated infrastructure such as elevated water tanks, silt traps, fencing, livestock water troughs, kiosks, and solar installations.
- Ensure inclusive participation of elders, women, youth, internally displaced persons (IDPs), and other vulnerable groups in accordance with the S-FSRP Stakeholder Engagement Plan (SEP).

**Consultation Method**

- The consultation was conducted through participatory discussions, including group meetings and individual interviews with elders, women, youth, IDPs, pastoralists, and Water Catchment Committee representatives.

**5 Consultation Time Started**: 12:30

*Table 11: Key Issues Raised, Responses, and Agreements – Sirinley Community*

| Issues Raised | Raised By | Answer / Agreement Provided | Responded By (Officer / Institution) |
|---|---|---|---|
| Persistent shortage of drinking water for both households and livestock due to reduced storage capacity and prolonged drought conditions. | Elders, pastoralists, women representatives | Confirmed that excavation to proposed dimensions will significantly increase storage capacity of the catchment to improving water security and resilience during dry seasons. | FAO Technical Team |
| Poor condition of embankments, seepage, silt accumulation, and lack of auxiliary structures such as fencing, silt traps, livestock troughs, and kiosks. | Water Catchment Committee, elders | Agreed to rehabilitate embankments, excavate the catchment by increasing the size, install protective lining where required, construct silt traps, livestock troughs, fencing, kiosks, and associated structures to improve functionality and sanitation. | FAO / MoAI PIU |
| Sanitation concerns due to open access by people and livestock leading to potential contamination of stored water. | Women, youth, IDPs | Confirmed that perimeter fencing and controlled livestock trough points will be constructed to reduce contamination and improve public health protection. | FAO & PIU |

| | | | |
|---|---|---|---|
| Concerns about temporary water interruptions during excavation and construction works. | Community members (mixed groups) | Agreed that works will be scheduled preferably during the dry season, advance notice will be provided (48–72 hours), and temporary arrangements will be discussed if needed. | FAO / PIU |
| Safety risks for children and livestock during excavation and construction activities. | Women, elders | Confirmed that safety measures will include fencing, warning signage, controlled access, and community awareness sessions in line with ESS4 requirements. | FAO Env. Safeguard |
| Request for prioritization of local skilled and unskilled labor during implementation. | Youth, elders | Agreed that local labor will be prioritized in accordance with the Labor Management Procedures (LMP) and transparent recruitment processes. | PIU |
| Need for Water Catchment Committee training on operation and maintenance (O&M). | Water Catchment Committee members | Confirmed that capacity-building sessions will be conducted to strengthen O&M management and long-term sustainability. | FAO Technical Assistance / PIU |
| Request for additional long-term water sources such as boreholes. | Elders, pastoralists | Clarified that the current intervention focuses on catchment rehabilitation under S-FSRP; additional water sources may be considered under future programming subject to assessment and funding. | MoAI PIU / FAO |
| Need for clear communication and access to the Grievance Mechanism (GM). | Women, IDPs, youth | Confirmed that GM channels (community focal points, hotline, complaint boxes) will be operational and publicized in line with ESS10 and SEA/SH Action Plan. | FAO / PIU |

*Table 12: Summary of Sirinley Community Meeting Minutes*

| No | District | Location of Meeting | Dates of Meeting | No. of Elders | No. of Women | No. of Men | Main Issues Raised | Agreed Actions | Names of Attendees |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Baardheere | Sirinley Village | 18/11/2025 | 5 | | 8 | Persistent water shortages; deteriorated embankments; seepage and siltation; lack of fencing and auxiliary structures; construction safety concerns; need for | Full support for rehabilitation; prioritization of local labor; phased implementation; enhanced water storage capacity; GM operationalization; dry-season scheduling where feasible. | (Full names, phone numbers, and signatures attached below) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | improved communication. | | |

**11. Disagreed Agenda/issues including Reasons for**

- No major disagreements were recorded. Some concerns regarding excavation scheduling and water disruptions were raised, but these were addressed by the commitment to phased works and advance community notifications.

**12. Consultation Ended Time**: *14:05*

**Consultation Facilitators' Name & Role:** **Signature:**

3. Shuaib Muse Cidhere, Civil Engineer ----------
4. Abdi-Shugri Abdullahi, Community Mobilizer ----------

Photos;

**List of participants:**

Sirinley River-embank-ment Community

Food and Agriculture Organization of the United Nations

Date: 18-11-2025

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Bavre Sh. Aadan Buule | Community | 61 | M | Elder | 0619408183 | |
| 2 | Aaden Xusseen Max'ed | Community | 72 | M | Elder | 0615032807 | |
| 3 | Max'ed Yuusuf Ibraahim | Community | 25 | M | Farmer | 0611223686 | |
| 4 | Axmed Cabdi Sh. Axmed | Community | 41 | M | Farmer | 061302466 | |
| 5 | Ibraahim Bilow Shookhow | Community | 52 | M | Farmer | 0615706368 | |
| 6 | Mahad Yuusuf Ibraahim | Community | 20 | M | Farmer | 0619810834 | |
| 7 | Yuusuf Ibraahim Xussen | Community | 35 | M | Farmer | 0615812613 | |
| 8 | Aaden Axmed Nuur | Community | 31 | M | Farmer | 6162630 | |

# Annex 6: Grievance Redress Mechanism (GM) Tools and Templates

This annex summary presents the grievance process, reporting channels, and key contacts for the Farwamo Pipeline Canal Rehabilitation under S-FSRP. Stakeholders may submit complaints at any time, anonymously or openly. The GM flows these steps:

- ***Step 1 – Submit a Complaint (Any Channel)***: Complaints may be submitted verbally or in writing through community leaders, WUC focal persons, the contractor, FAO field officers, the State PIU, or the toll-free numbers. SEA/SH cases bypass local structures and go directly to the PIU GBV Focal Point or FAO/OIG.
- ***Step 2 – Register and Acknowledge***: The Jubaland State PIU registers all complaints and acknowledges receipt (normally within 48 hours). Initial screening determines whether the issue can be resolved immediately or requires escalation.
- ***Step 3 – Assess and Resolve***: The State PIU, FAO, and contractor collaborate to investigate and resolve issues—typically within 7–14 days. Technical issues may be escalated to NPCU if needed.
- ***Step 4 – Close or Escalate:*** If a resolution is accepted, the case is closed. If the complainant is not satisfied, the grievance may be escalated to NPCU or FAO Compliance, and ultimately to FAO OIG or the World Bank's GRS for serious cases.

*Table 13: GM Contact List (Project, State, National & FAO/OIG)*

| Level | Contact Person / Office | Contact Details | Notes |
|---|---|---|---|
| Project Level | WUC / Community Focal Points | Local contacts | First point of intake |
| State PIU – Jubaland MoAI | Social Safeguards & GBV Team | **Email:** /gbv@fsrp.gov.so | State-level GM & GBV focal points |
| National PCU – MoAI-FGS | National FSRP GM Secretariat | **Hotlines:** 570 / 540 (toll-free) | National escalation channels |
| FAO Compliance Unit | Ibrahim Bare, AAP & Compliance Officer | Ibrahim.bare@fao.org | Responsible for FAO Somalia project accountability |
| | Head of Compliance, Risk Management, Accountability | Bakhta.Boualam@fao.org | Escalation for sensitive cases |
| FAO Somalia Complaint Hotline | FAO Feedback Hotline | +252 633 550 120 | Phone/SMS option |
| FAO OIG – Independent Oversight | Office of the Inspector General | **Online:** fao.ethicspoint.com<br>**Email:** Investigations-hotline@fao.org / inspector-general-office@fao.org<br>**Mail:** FAO OIG, Rome | Serious, confidential, or unresolved cases |

*Table 14: GM Intake/register*

| GM Code | Date Received | Complainant (Optional) | Location | Issue Summary | Category | Action Required | Responsible Unit | Status | Date Closed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

**SEA/SH Survivor-Centered Referral Pathway**

This pathway ensures survivors can report safely and confidentially, without fear of retaliation or exposure. No personal details or written statements are required.

**1. *Safe and Confidential Reporting Options***

Survivors may report directly to:

- State PIU GBV Specialist (confidential inbox): **/gbv@fsrp.gov.so**
- FAO Compliance Unit**:** Ibrahim.bare@fao.org
- FAO OIG (independent and confidential): fao.ethicspoint.com
- FAO OIG email: Investigations-hotline@fao.org

*Note:* SEA/SH cases **must not** be reported through community leaders or recorded in public registers.

**2. *Immediate Safety and Support***

The GBV focal point ensures:

- Immediate safety assessment
- Confidential conversation
- No personal identification recorded
- Referral to local service providers (health, psychosocial, case management)
- SEA/SH cases are not mediated with alleged perpetrators and are kept separate from the general GM.

**3. *Coordination and Follow-Up***

FAO and the State PIU coordinate discreetly to ensure the survivor receives assistance.
No project staff investigate SEA/SH cases — they are treated strictly through survivor support and professional services.

**4*. Accountability Measures***

The contractor must:

- Remove any implicated workers
- Retrain all personnel on the Code of Conduct
- Reinforce SEA/SH prevention during toolbox meetings
- Immediately remove any implicated workers from the site pending investigation.
- Apply contractual sanctions, including termination, in line with the Code of Conduct and national law.
- Report SEA/SH allegations promptly through confidential channels to the PIU/GBV focal point.
- Ensure non-retaliation against complainants and witnesses.

## Annex 7: Stakeholder Consultation Photos

Jubaland MoAI State meeting Photo @ Kismayo District

Shimbiroole Water Catchment Community Meeting Photos - Shimbiroole Community