





IFAD CRISIS RESPONSE INITIATIVE (CRI)

PROJECT TITLE: RESPONSE INITIATIVE FOR SOMALIA EMERGENCIES (RISE)

ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK (ESCMF)

DECEMBER 2022

ACKNOWLEDGMENT

The Environment, Social and Climate Change Expert is grateful to Sadar Development and Resilience Institute (SADAR) for commissioning ESCMF. I further acknowledge the support, either direct or indirect, from the various parties who assisted, towards the successful completion of this Framework. Finally, I wish to recognize and appreciate reviewers at IFAD for reviewing this document.

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EXECUTIVE SUMMARY

This Environmental, Social and Climate Management Framework (ESCMF) is undertaken by Sadar Development and Resilience Institute (SADAR) in close collaboration with Federal Government of Somalia for Response Initiative for Somalia Emergencies (RISE) project is to minimize impacts of Ukraine crisis on livelihoods, resilience, and food security of IFAD's target group (initial allocation under the CRI, the project will target about 5,000 HHs (50%) of the total project outreach or 30,000 direct beneficiaries. In line with IFAD targeting policy, at least 50% of the targeted beneficiaries will be women and 25% will be youth from the marginalized groups and affected crisis.

This ESCMF has been prepared based on the social, environment and climate change assessment procedures (SECAP) of IFAD that was completed as part of the project design phase that included consultations with Implementing partners, Federal and State level government entities, local communities, private sector, and civil society entities. The updated screening of the project against IFAD's Social, Environmental and Climate Assessment Procedures (SECAP) Vol 1 2021 Edition ¹ using the attached tool (Annex 1) resulted in an overall social and environmental risk categorization of the Project as **moderate risk**. The project involves small scale community level water infrastructure investments that may pose significant risks and impacts on human populations or the environment if not adequately managed. These impacts are generally identified as predictable and temporary and thus mitigation measures are recommended. Additionally, climate risk screening using the attached tool (Annex 2) confirmed the project's climate risk classification as **Substantial risk**, there is the potential for widespread impacts from climate change and outcomes may be undermined by climate change, however mitigation activities of the project shall reduce the risks identified.

This ESCMF has reaffirms the initial project risk categorization and outlines the processes that will be undertaken during the project inception/implementation phases for the additional assessment of potential impacts and identification and development of appropriate risk management measures, consistent with IFAD's SECAP Policy.

The report also identifies the steps that will be followed during the inception/implementation phases for the completion of stand-alone management plans as justified based on the results of the screening process for the moderate and substantial risks identified.

The project level grievance redress mechanism for complaints and issues under the ESCMF are also described in the report.

This ESCMF details budget, roles and responsibilities for its implementation and monitoring and evaluation plan.

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¹ The project was screened risk rating against nine (9) SECAP criteria points, which are 1) Biodiversity conservation; 2) Resource efficiency and pollution prevention; 3) Cultural heritage; 4) indigenous peoples; 5) Labour and working conditions; 6) Community health and safety; 7) Physical and economic resettlement; 8) Financial intermediaries and direct investments; and 9) Climate change.

ABBREVIATIONS/ACRONYMS

CBO Community Based Organization

CRI Crisis Response Initiative

ESCMF Environmental, Social and Climate Management Framework

ESIA Environmental and Social Impact Assessment

ESCMP Environment, Social and Climate Management Plan

FGS Federal Republic of Somalia FMS Federal Member States GBV Gender Based Violence

GRM Grievance Redress Mechanism

HH Household

IFAD International Fund for Agricultural Development

IMC Information Management CentresIPC Integrated Phase ClassificationMoAl Ministry of Agriculture and Irrigation

MoECC Ministry of Environment and Climate Change NBSAP National Biodiversity Strategy and Action Plan

NDP National Development Plan
NGOs Non-Governmental Organization
OSH Occupation Safety and Health
PMU Project Management Unit

PSEA Prevention of Sexual Exploitation and Abuse

PWDs Persons With Disabilities

RLAC-19 Resilient Livelihood Action to COVID-19
RISE Response Initiative for Somalia Emergencies
SADAR Sadar Development and Resilience Institute

SDGs Sustainable Development Goals

SECAP Social, Environment and Climate Change Assessment Procedures

SHEA Sexual Harassment, Exploitation and Abuse

VMGs Vulnerable And Marginal Groups

CHAPTER ONE INTRODUCTION BACKGROUND OF THE PROJECT

1.1 Overview/Background on intended Project

Somalia's fragile food security system is threatened by the Ukraine Crisis, nearly three decades of armed conflict and insecurity, recurrent drought, and devastating outbreaks of COVID-19 and recurrent invasions of desert locusts, which have all strained Somalia. The resilience programming and economic empowerment gains made by the Government of the Federal Republic of Somalia (FGS) and development partners such as IFAD in recent years are at risk of reversal if the international community does not act swiftly to assist Somalia in averting a severe food security crisis.

The ongoing Ukraine crisis exacerbates humanitarian needs and erodes the resilience and productive capacity of smallholder farmers and pastoralists in rural areas that are poor, and resource constrained. Energy and transportation costs have skyrocketed due to fuel price increases affecting agriculture reliant on small diesel engines for irrigation. According to Devex, wheat and oil prices have already increased by 300 per cent, while the price of fuel (petrol and diesel) has reached a record 100 per cent increase. All of Somalia's wheat is imported from Russia and Ukraine.

According to IPC Acute Malnutrition Situation July - September 2022 and Projection for October - December 2022. (Released on 13/9/2022), based on the results from 25 integrated food security, nutrition and mortality surveys conducted by the Food Security and Nutrition Analysis Unit (FSNAU) and partners in June and July 2022 and subsequent IPC acute malnutrition analysis conducted in August, the total acute malnutrition burden for Somalia from July 2022 to June 2023 is estimated at approximately 1.8 million children under the age of five years (total acute malnutrition burden), representing 54.5 percent of the total population of children, face acute malnutrition through the mid-2023, including 513 550 who are likely to be severely malnourished. See figure 1 below.

Acute malnutrition is already at Critical levels in many areas of central and southern Somalia, and the number of acutely malnourished children being admitted to treatment centers is rapidly increasing, with two to four-fold increases reported in some districts. Worsening food security conditions and limited access to clean water have led to outbreaks of acute watery diarrhoea/cholera (AWD) in many areas. Coupled with an increase in measles cases, disease incidence is contributing to rising levels of acute malnutrition, reflected in the rising number of moderately and severely malnourished children admitted to treatment centers. Acute malnutrition case admissions among children under age five rose significantly in 2022 compared to the preceding three years.

Levels of mortality (both the Crude Death Rate (CDR) and the Under-Five Death Rate (U5DR) have surpassed Emergency (IPC Phase 4) thresholds in several areas.

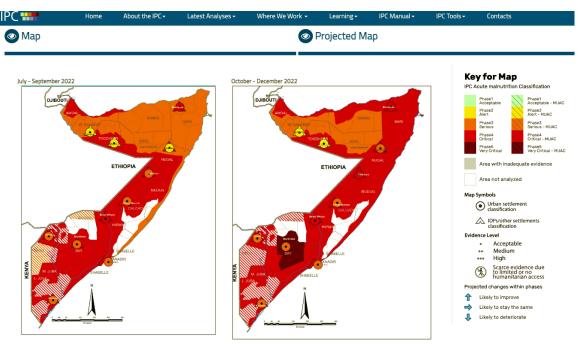


Figure 1. Somalia: Acute Malnutrition Situation July - September 2022 and Projection for October - December 2022

1.2 Countries/regions/territories where activities will occur

The activities will occur in three states in Somalia. They include Puntland state (Qardho and Galkacyo districts), Galmudug state (Adado and Hobyo Districts) and Hirshabelle state (Beledweyne and Jowhar districts). The targeted states are most impacted by the effects (i.e., rising prices of e.g., fertilizer, seeds, and fuel) of the Ukrainian crisis as well as the on-going drought. The states are considered the "food basket" of Somalia, therefore, it is paramount to mitigate the impacts to agricultural capacities in these states to ensure food security across the county.

RISE is IFAD funded project through a contribution from the Crisis Response Initiative (CRI), an IFAD fund to protect productive livelihoods by addressing the urgent needs caused by the current crisis in Ukraine, while at the same time tapping into new market opportunities for smallholders and thus supporting sustainable food systems, while already dealing with other unforeseen shocks. As there are no ongoing investment projects in Somalia because of the suspension of the portfolio since 1991 due to the unsettled debt arrears with IFAD, RISE is being proposed as a standalone project to address the urgent and critical needs of the target beneficiaries.

RISE is a complementary project to the Resilient Livelihood Action to COVID-19 Project (RLAC-19) that aims to reaching more beneficiaries/Households (HH), increasing the geographical areas, including new interventions in the Federal Member State of Hirshabelle and planned expansions to Southwest and Jubaland state (depending on funding availability). RISE will also facilitate IFAD's deepened engagement in Somalia with the ongoing design of GEF/GAFSP-funded grant projects in extraordinarily fragile and conflict-affected contexts. The design of RISE is a countrydriven process and fully reflects FGS' request submitted for IFAD on 01 April 2022. The ownership and partnerships will be assured at Federal and State levels, and through collaboration between SADAR and existing networks of local organizations, community groups and other actors. The project will align to the existing and emerging UN coordination mechanisms and will work closely with FGS, and other UN organizations, governments, and resource partners. The design of RISE is also aligned with national priorities and strategies as outlined in the Somalia National Development Plan for 2020 to 2024 (NDP-9 – Pillar 3 Economic Development and Pillar 4 Social Development) which is further aligned with mainstreaming the Sustainable Development Goals (SDGs) across the Government agenda reflecting the principles of the 2030 Agenda for Sustainable Development. RISE, being an official government request, holds political support at Federal and State levels and will leverage government expertise and resource in the project's

activities including use of government resources during the supervision missions for activities and works.

RISE responses will be speedy without compromising quality as it will be implemented rapidly through the SADARs existing delivery network. The activities will be simple, demand-driven and tailored to local conditions in the project area. SADAR has demonstrated its ability to implement similar crisis response interventions as it did with the RPSF programme for RLAC-19. Rapid start-up and implementation of the project will be assured through support of both the FGS and SADAR's existing networks.

RISE would reach 10,000 HHs, which is 60,000 direct beneficiaries. However, with the available initial allocation under the CRI, the project will target 5,000 HHs (50%) of the total project outreach or 30,000 direct beneficiaries. In line with IFAD targeting policy, at least 50% of the targeted beneficiaries will be women and 25% will be youth from the marginalized groups and affected crisis.

Youth/Gender: As mentioned above as well, some 25% of beneficiaries will be youth and 50% will be female. Youth and gender will mostly benefit from interventions under **component one** and assessments executed under the component should ensure that entry points identified are youth/gender sensitive (e.g., considering existing cultural norms, assets such as land holdings and resources). If RISE works with cooperatives/Water Users Association (WUA) then a minimum percentage (to be decided based on the feasibility study) of the membership should be either women or youth. It is anticipated the women will largely benefit from the small ruminants since the Somali society is a patriarchal society and in the family labour division, women are responsible for the rearing of small ruminants. Additionally, youth will be introduced to modern agriculture as means of alternative livelihoods to curb illegal migration in dangerous routes and joining militia groups.

1.3 Executing entity

SADAR Institute shall be implementing the project in collaboration with the Federal Ministry of Agriculture and Irrigation and State level Ministry of Agriculture in Puntland, Galmudug and Hirshabelle state.

1.4 Description of The Proposed Project

1.4.1 Project area and target group

The project will be implemented in three Federal states in Somalia: Puntland state in Qardho and Galkacyo districts. Galmudug state in Adado, Hobyo Districts and Hirshabelle state in Beledweyne and Jowhar districts. The targeted states are most impacted by the effects (i.e., rising prices of e.g., fertilizer, seeds, and fuel) of the Ukrainian crisis as well as the on-going drought.

1.4.2 Goal, objective, and impact indicators

The project goal is to minimize impacts of Russia-Ukraine crisis on livelihoods, resilience, and food security of IFAD's target group (initial allocation under the CRI, the project will target about 5,000 HHs (50%) of the total project outreach or 30,000 direct beneficiaries. In line with IFAD targeting policy, at least 50% of the targeted beneficiaries will be women and 25% will be youth from the marginalized groups and affected crisis.

The project development objective is to maintain and improve climate- smart agricultural productive capacity, post-harvest, and resilient water infrastructure access for small-scale producers affected by Ukraine crisis by contributing to conducive agro-ecological and market conditions, protecting productive livelihoods of beneficiaries, and tapping new market opportunities to reduce small-scale producers' vulnerability, enhance their resilience to the shocks from the Ukraine crisis.

Specific objectives:

1. Supporting to agricultural productive capacity and functionality of food supply chains and

2. Supporting resilient irrigation and domestic water supply infrastructure, through innovations, and technologies.

Expected Output and outcome.

- The expected outcome under component 1: To improved access to inputs, markets, and technologies for enhancing agricultural and livestock productivity for at least 3,750 households.
- 2. Expected Outcomes under component 2: is to improved access to water and technologies for irrigation and domestic use to enhance productivity and production of small-scale farmers for at least 75% of the 5,000 target households which is 3,750 households.

1.4.3 Project implementation structure

This project will be implemented by SADAR and coordinated by the Federal Ministry of Agriculture and Irrigation. IFAD is providing financial support to the implementation of the project.

Lessons on Social and Environmental Management

There are some environmental, social and climate risks like recurrent drought, high cost of production (due to the on-going Ukraine crisis that has increased cost of fuel used for small scale irrigation) in the region where the project is being implemented. The project will, therefore, build on ongoing IFAD projects in Somalia to ensure mainstreaming climate change adaptation and sound environmental and social management to minimize risks and promote climate change smart agribusiness for the beneficiaries.

Environmental and social category

As per IFAD Social, Environmental and Climate Assessment Procedures (SECAP), during the implementation of any proposed project there might be environmental, social and climate risks.

According to SECAP Vol. 1 2021 Edition² categorization, the proposed RISE project falls under. moderate for environmental and social impacts (Annex 1), the screening showed that RISE proposed project falls under "Moderate Risk" category, implying that, the potential adverse risks and impacts on human populations or the environment are **not likely to be significant**. This may be because proposed project is not complex or large, will not involve activities with high potential for harming people or the environment, and are located away from environmentally or socially sensitive areas.

The potential risks and impacts are: — Predictable and expected to be temporary or reversible; — Low in magnitude; — Site-specific, without the likelihood of impacts beyond the project life cycle; — Low probability of serious adverse effects to human health or the environment (e.g. they do not involve the use or disposal of toxic materials, or routine safety precautions are expected to be sufficient to prevent accidents); — The project's risks and impacts **can be easily mitigated in a predictable manner**.

Climate risk classification is "Substantial" with a score of 6.06 as per climate risk screening checklist (Annex 2). The proposed project has some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts are less adverse, and can be readily remedied by appropriate preventive actions and/or mitigation measures. No formal ESIA is required for Moderate programmes and projects.

The proposed project will consist of supporting of small-holder agricultural production units with farm input packets and development of irrigation and domestic water supply infrastructure through innovation and technologies. The environmental impacts will be site-specific and on the proposed project to be implemented. Mitigations measures for the identified risks and impact will be put in place.

 $^{^2}$ SECAP Vol. 1 2021 edition. Cited in <u>https://www.ifad.org/documents/38711624/44600056/secap2021_01.pdf/31edfefff70c-67b0-994a-d0ec4630dd81?t=1644422496395.</u>

1.5 Rationale and objectives of the ESCMF

The proposed project falls under Environmental and social risk **Moderate**. The project involve provision of production inputs and farm equipment/implements and support of irrigation infrastructure that has triggered the moderate categorization. The proposed project is classified as "**substantial**" for climate risk. As a result, the project requires an Environment, Social and Climate Management Plan (ESCMP) only.

This report includes a general Environment, Social and Climate Management Plan (ESCMP) with main objectives as follows:

- Identify potential impacts of the project and to prepare a generic Environmental, Social and Climate Management Plan for the direct and indirect impacts, as well as incremental impacts as they relate to land use changes, soil erosion, dust emissions, noise pollution, contamination/degradation of soils by application of fertilizers, loss of trees, biodiversity, liquid, and solid wastes from the activities as well as social relations, benefits sharing and settling of grievances among others.
- 2 Formulate an Environmental, Social and Climate Management Framework (ESCMF) including any standards and procedures, specifying how unidentified subprojects whose location are unknown will systematically address environmental and social issues in the screening for environmental and social impacts and categorization, site selection criteria, mitigation measures, design, implementation, and operational phases as well as maintenance of the subproject lifecycle.
- 3 to Formulate Environmental and Social guidelines for construction firms (especially for installation of irrigation infrastructure) to be recruited as contractors. These guidelines shall be recommended for incorporation in contractor's bids and contract documents.

1.6 Approach, scope, and methodology for the ESCMF

- 1 This ESCMF report is in accordance with the IFAD's Social, Environmental and Climate Assessment Procedure (SECAP) as well as IFAD's Environment and Natural Resources Management Policy, the Gender Equality and Women's Empowerment, and Targeting policies. The report also considers Somalia relevant environmental and social laws, policies, and guidelines.
- 2 These findings were complemented by a desk review of relevant documents on the environmental and social context of Somalia. In addition, the ESCMF is the result of an assessment and determination of impacts, including impact identification, prediction, evaluation, and interpretation, based on field studies and consultations in 2022.
- 3 In terms of the technical scope, the ESCMF reviewed environmental, climate and social impacts, focusing on areas that have been impacted by climate change and unproductive agricultural practices because of increase in cost of production because of the on-going Ukraine Crisis.

1.7 Stakeholder consultations

Consultations were held with the Federal Ministry of Agriculture and Irrigation and State level Ministries of Agriculture. At local level, a wide range of consultations were held with local communities and beneficiaries, CBOs, NGOs, private actors, and religious chiefs

1.8 Disclosure of ESCMF

<u>IFAD's Policy on the Disclosure of Documents (2010)</u> requires full disclosure to the public and includes information notes on projects being developed for Executive Board presentation, agreements for approved loans and grants, and project/program design documents. This ESCMF will therefore be disclosed on IFAD's official website (https://ifad.org). In addition, the ESCMF is be disclosed on ministries official website, IFAD website, so that all stakeholders can access the document.

1.9 Report outline

The outline of this ESCMF is as follows

Preliminaries

Chapter One: Introduction (Overview/Background of The Intended Project)

Chapter Two: Description of the project

Chapter Three: Potential Environmental, Social and Climate Risks and Impacts

Chapter Four: Legal Framework, Project Administrative Structure, Management, And

Implementation

Chapter Five: Procedures for Screening, Assessment, And Management Chapter Six: Environmental, Social and Climate Management Plan (ESCMP)

Chapter Seven: Institutional Arrangement and Capacity Building

Chapter Eight: Stakeholder Engagement, Information Disclosure and Grievance Redress

Chapter Nine: Cost and Budgetary Considerations

Chapter Ten: Environmental, Social and Climate Management Matrix.

ANNEX

2.1 Introduction

The project will be implemented under three components as described below.

2.2 Component 1: Support to Agricultural Productive Capacity and Functionality of Food Supply Chains.

This component aims to ensure easy, timely, and affordable access to agricultural inputs, fuel/energy, and functionality of food supply chains for cereal crops and horticulture crops. It also supports the functionality of food supply chains and reduce food losses by availing of post-harvest equipment and facilities and training of smallholder farmers in post-harvest practices to ensure quality products. The Key output under this component is introducing and distributing production inputs, equipment, small ruminants, technological packages, and post-harvesting equipment to targeted farmer households. At the end of the project, at least 75% (3,750 HHs) of the targeted households will have improved access to inputs, markets, and technologies for enhancing agricultural and livestock production and productivity.

The component is organized around four main interventions

- 1. Provision of production inputs and farm equipment to increase productivity and production capacity of smallholder farmers, agropastoral and fisher folks
- 2. Distribution of agricultural implements that include walking tractors and 16 litre knapsack sprayers.
- 3. Introduction of post-harvesting equipment and facilities
- 4. Training for improving crop production and post-harvest handling

2.3 Component 2. Support resilient irrigation and provision of domestic water supply infrastructure, through innovations, and technologies.

Planned interventions under this component include:

- i. Technical studies/assessments to draw the designs, assess the water demand for irrigation and alternative energy solution and supervision of works.
- ii. Delivery and installation of one major solar-powered irrigation system in **Beleweyn district** to improve year-round access to water for irrigation and allow for the cultivation of an additional 200 Hectares by smallholder farmers along the Shabelle river.
- iii. Provision, distribution, and installation of 20 drip irrigation kits composed of drip pipes and elevated water tanks for smallholder cooperatives (particularly youth groups) covering at least 20 ha for high-value vegetable and fodder farming.
- iv. Rehabilitation and installation of solar-powered pumping system on six (6) shallow wells complete with domestic and livestock water points.
- v. Delivery and installation of 15 elevated water tanks for domestic water storage in the targeted villages.
- vi. Construction of two (2) storage facilities/fodder banks in Hirshabelle and Galmudug
- vii. Procuring and distribution of fodder harvest and post-harvest machinery for smallholders. This includes the distribution of 3,000 sickles for harvesting fodder (one per beneficiary) and 360 small-scale fodder balling machines to aid in storing and transporting fodder.

RISE will target five (5) schools in Puntland state for construction/rehabilitation of school wells in **Galkacyo North District (Puntland state)** to establish school gardens. The schools will benefit from installation of solar powered water system (iv), installation of elevated water tank (v) and installation of drip irrigation on the land allocated for the school garden(iii), fencing of the school gardens and where possible, installation of piping and water taps for the schools and separate

water point for the neighbouring communities as well training on good agricultural practices. In addition, the project will provide horticultural seeds and organic fertilizers for the school gardens. RISE will coordinate with WFP on the targeting and identification of the schools, in the context of collaborations with UN and Rome-Based Organisations (RBAs). The Project will identify school board and management committee that will be responsible for the day-today management of the water system within the schools.

Table 1. Activities planned for each district

Activities	District	
Distribution of Production implement, Agricultural Inputs	6 target districts-	
	Puntland-Galkacyo North, Qardho	
	Galmudug-adado, Hobyo	
	Hirshabelle-Jowhar &	
	Beledweyne	
Post-harvest equipment and facilities	Qardho, Galkacyo North,	
Irrigation and water supply infrastructure and	Galkacyo North, Beledweyne	
technologies		
Postharvest technologies (Livestock fodder)	Galkacyo North, Qardho, Adado	
Technical assessment/supervision		

2.4 Component 3: Project management, monitoring, evaluation, and knowledge management

The component will aim at coordinating and providing the necessary support services for the effective implementation of the project, including taking all recommended COVID-19 precautions for the project staff, implementing partners and beneficiaries.

RISE will adopt the Monitoring, Evaluation, Accountability, and Learning (MEAL) approach for monitoring and evaluation. This is an integrated system that generates detailed, field-based data collection and analysis, regular monitoring, reporting of implementation progress to continuously improve project quality delivery and learning. The specific project indicators will be elaborated in the log frame of the project design.

RISE will develop detailed Monitoring and Evaluation (M&E) Plan that will be used to track the achievement of the project. The monitoring plan specifies indicators, data sources, methods of data collection and responsibilities for data collection and analysis. The step-by-step check and control approach will be applied in this project.

RISE will also conduct Baseline production/income surveys to set a benchmark for performance measurement will be conducted and post distribution monitoring will be conducted using the Kobo platform to track outcomes.

CHAPTER THREE POTENTIAL ENVIRONMENTAL, SOCIAL, AND CLIMATE RISKS AND IMPACTS:

3.1 Introduction

The project targets at minimizing impacts of Ukraine crisis on livelihoods, resilience, and food security of IFAD's target group. To achieve the set goal, the project aims specifically at: (i) Supporting to agricultural productive capacity and functionality of food supply chains and (ii) Supporting resilient irrigation and domestic water supply infrastructure, through innovations, and technologies. The above activity will have positive and negative environmental and social impacts.

Before the implementation of the project an environmental, social, and climatic management plan shall be prepared to guide the protection of the environment and social during the implementation of the project. Activity specific plans will be prepared where necessary.

3.2 **Description of the Project Location**

RISE will be targeting the rural smallholder farmer, pastoralist and agro-pastoralist communities located in in the Federal Member States (FMS) of Galmudug (Adado and Hobyo Districts), Hirshabelle (Beletweyne and Jowhar Districts) and Puntland (Qardho and North Galkayo Districts). Based on additional funding availability, RISE will expand to Southwest and Jubaland state. Targeted areas are the most impacted by the effects (rising prices of e.g., fertilizer, seeds, and fuel) of the Ukrainian crisis as well as the ongoing drought. Being the "food basket" of Somalia, it is paramount to mitigate the impacts to agricultural capacities in these areas to ensure food security across the country. The project will target two villages in each of the two districts per state with more production potential and most affected by the Ukraine crisis.

The six (6) target districts and (12) villages will be selected through participatory process, in coordination with the Federal Ministry of Agriculture and Irrigation, FMS Ministries of Agriculture, local districts and Community Based Organizations, taking into consideration the need to scale up those who have already benefitted from IFAD-funded projects to avoid duplication of efforts. Additional districts and villages will be selected to expand the outreach of the project in the areas with more production potential as noted. Through participatory process, state level MoAs, district authorities, representatives from community and religious leaders and elders, minority communities and women groups will be involved in the beneficiary targeting. Beneficiary verification will be done through community forums. The project will also conduct beneficiary sensitization for a during the project onset with aim of ensuring that every beneficiary understands the project and entitlements.

I. Puntland state in Qardho and Galkacyo districts

1. Qardho District

Qardho is in Bari region, Puntland state in Somalia.

Climate and meteorology of Qardho

- Altitude: an elevation of 2,632 feet (802 m) above mean sea level.
- The average temperature in 29°C, an average rainfall of 265 mm annually.
- It is dry for 165 days a year with an average humidity of 75% and an UV-index of 7

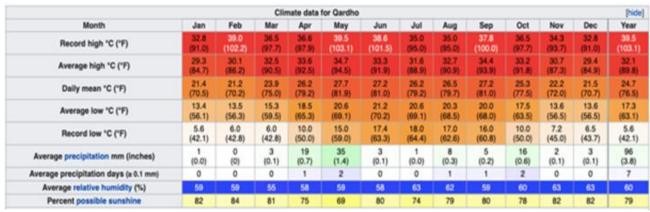


Figure 2. Climate data for Qardho

Source: Source: Food and Agriculture Organization: Somalia Water and Land Management and Deutscher Wetterdients

Air quality

Air quality measurements are not available. However, during the dry seasons the area is dusty thus reducing the air quality. Dust emission has been discussed as one of the impacts during farming and construction works.

Ground water

The area has ground water. In total, 50 water points were captured in all settlements, with a total of 81 taps. 38% are connected to the municipal water system. It was considered by the surrounding population that 58% of the water was potable.

a. Biological Environment

Flora, the area has indigenous trees, shrubs, and herbaceous plants at the site. Invasive alien species are also found like the *Prosopis juliflora*. *Fauna*, there are *Avian Spps*, Hyenas, Antelopes, Ostriches among other wildlife.

b. Human environment and social amenities

The population of Qardho is estimated **to 30,254** The community members earn their living through livestock production and productivity, trade, working in factories, farming activity and labour. According to the Puntland Ministry of Education, there are 39 primary schools with 4 secondary schools in the Qardho District. There are 6 health facilities. Electricity and telecommunication are within the town. The area has sufficient water. Project

2. Galkacyo North district

a. Project location

The project shall be implemented in Galkayo North district, Mudug region, Puntland state as shown in the map below.

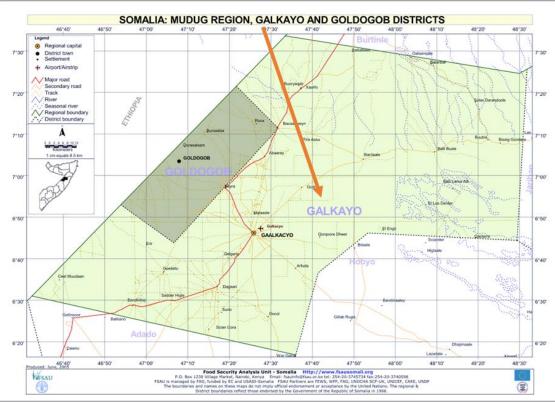


Figure 3. Galkayo District

b. Climatic conditions

The average temperature in 29°C, an average rainfall of 265 mm annually.

c. Edaphic (soils) and geological factors.

The soils are moderately deep loamy soils with a high content of calcium carbonate and/or gypsum.

d. Biotic factors (Flora & Fauna)

Flora: The main type of vegetation consists of wooded grasslands, desert bush lands Forbes and shrubs. The type of vegetation is highly depended on altitude, soil type and rainfall. The main vegetation within the proposed site is *Cordia senensis*, *Acacia spps* tree species and *Commiphora Spps*.

Fauna: the area has both domestic animals (camel, cattle, sheep and goats, donkeys, and poultry) and the wildlife (ostriches and other *Avian Spps*, antelopes, *dik-dik*, snakes, squirrels, honey badgers.

e. Water resources & hydrology.

The water sources in the district include shallow wells, boreholes water pans and seasonal rivers. Water trucking is practiced during the dry season.

f. Socio-economic activities

• **Livelihood activities**: The community main source of livelihood is rearing of livestock. A few crops are grown in the village.

- **Demography**: According to <u>UNDP</u>, (2014) <u>Population Estimation Survey 2014 by UN Population Fund</u>, (2019) <u>OCHA Somalia Information Management Working Group (IMWG)</u>. The district is made up of a total of 501,542 Population [2019]— *Projection*. About 69.5% of the population is in the urban, while 18.6% are in the rural setup. The project targets the population in the rural that practice farming. The population is distributed in the district according to livelihood as shown in the diagram below
- a) Education/Literacy: The village has several primary schools. According to the Puntland Ministry of Education, there are 40 primary schools and 4 secondary schools. There are two vocational training institutes (a private and a public).

b) Infrastructure:

Health: the district has no dispensary and rely on Diff health centre.

Communication: the village is served with mobile networks

Roads: the district has a *marram* and earth road. During the rainy season the road is impassable and very dusty during the dry seasons.

c) Land system: - tenure system is purely communal. There are no environmentally sensitive areas to be affected.

II. Galmudug state Adado and Hobyo districts

1. Adado District

Adado is bordered by Gaalkacyo in the north, Red Sea in the East, Dhsamareb in the South, and Abudwak in the West. The geographical coordinates of Adado are 6°08′25″N and 46°37′32″E. as shown in the map.

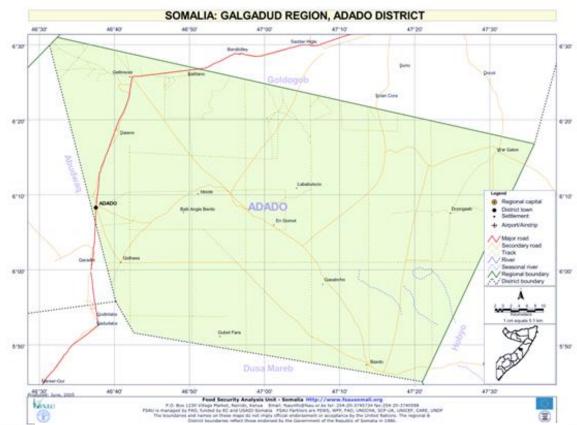


Figure 4. Galgaad Region, Adado

a. Climatic conditions

The weather averages for the month of November, temperature averages around 30°c and at night it feels like 26°c. In November, `Adado gets on an average 160.03mm of rain and approximately 8 rainy days in the month. Humidity is close to 77%. Adado experiences four seasons in a year: drought season (January- March), long rainy season (April- May), winter season (June – July) and short rainy season (November- December).

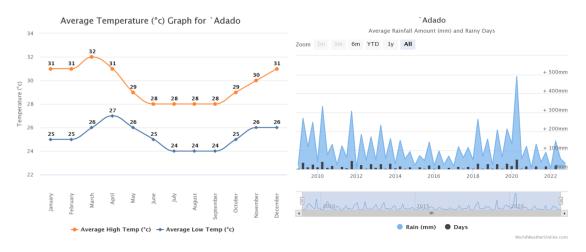


Figure 5. Climate data for Adado

b. Edaphic (soils) and geological factors.

A larger percentage of the landscape of Adado is sandy, while about twenty percent of the landscape is rocky.

c. Biotic factors (Flora & Fauna)

Flora: The main type of vegetation consists of wooded grasslands, desert bush lands Forbes and shrubs. The type of vegetation is highly depended on altitude, soil type and rainfall. The main vegetation within the proposed site is *Cordia senensis*, *Acacia spps* tree species and *Commiphora Spps*.

Fauna: the area has both domestic animals (camel, cattle, sheep and goats, donkeys, and poultry) and the wildlife (ostriches and other *Avian Spps*, antelopes, *dik-dik*, snakes, squirrels, honey badgers

d. Water resources & hydrology.

The district relies on water pans, boreholes, shallow wells, and seasonal rivers as main sources of water. there is inadequate water during the dry season. The project will provide water for irrigation.

e. Human environment and social amenities

There are 140 villages within the Adado district: with a total population of 395,051. The main economic activities in Adado district are farming, fish farming, petty trading, transportation, and crop farming.

The roads networks in Adado are generally bad. The first main road is within Adado town, and it covers 70km. The second road runs between Da-heer to El nuur and it covers 380 kms. There are four hospitals in Adado town, three of the hospitals are privately owned, while one hospital is government owned. The people in Adado are not literate, which can be attributed to the fact that the whole Adado has only seven elementary schools, with only a few qualified teachers. The schools are always empty due to the poverty level and lifestyles in the town.

2. Hobyo districts

Hobyo is a district in the north central Mudug region, Galmudug state of Somalia as shown in the map below. Its capital is the coastal city of Hobyo.

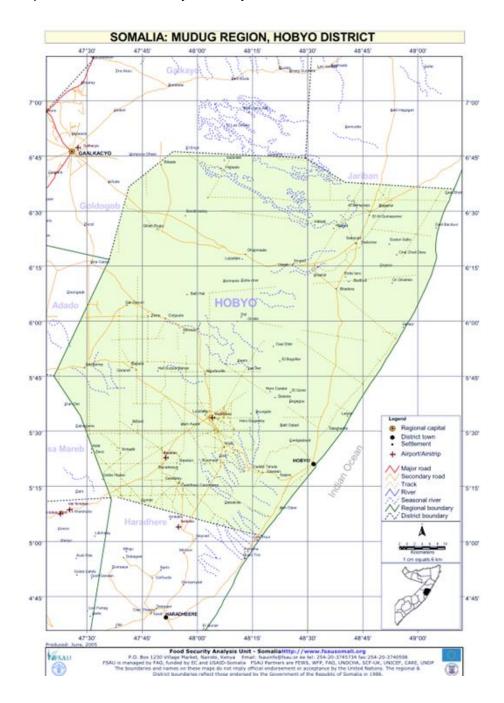


Figure 6. Hobyo District Map

a. Climatic conditions

The average rainfall per annum is about 300mm, while the average temperature is 30°C as shown in the diagram below.

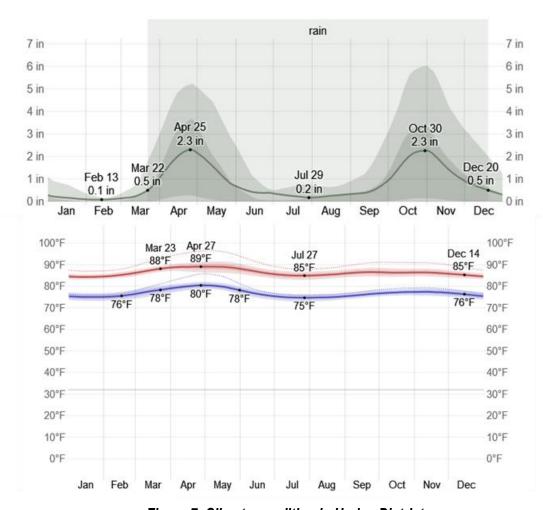


Figure 7. Climate condition in Hodyo District

b. Social economic and demographics

Hobyo town has a population of around 11,800 inhabitants. The broader Hobyo District has a total population of 67,249 residents. Hobyo has a seaport which serves the town, and it also has air transportation, the city is served by the Hobyo Airport. Livestock rearing and crop production is the main source of livelihood for Hobyo residence.

c. Edaphic (soils) and geological factors.

A larger percentage of the landscape of Hobyo is sandy, while about twenty percent of the landscape is rocky.

d. Biotic factors (Flora & Fauna)

Flora: The main type of vegetation consists of wooded grasslands, desert bush lands Forbes and shrubs. The type of vegetation is highly depended on altitude, soil type and rainfall. The main vegetation within the proposed site is *Cordia senensis*, *Acacia spps* tree species and *Commiphora Spps*.

Fauna: the area has both domestic animals (camel, cattle, sheep and goats, donkeys, and poultry) and the wildlife (Ostriches and other *Avian Spps*, antelopes, *dik-dik*, snakes, squirrels, honey badgers.

e. Water resources & hydrology.

The main sources of water are boreholes, seasonal rivers (*laggas*), shallow wells and water pans.

III. Hirshabelle (Beletweyne and Jowhar Districts)

1. Jowhar Districts

Jowhar is the capital city of Hirshabelle State and the administrative city of Middle Shabelle Region. It is situated about 90 km north of Mogadishu. Jowhar consists of 4 urban villages, namely Horseed, Bulosheikh, Kulmis, and Hantiwadag. It connects Mogadishu to the rest of the central regions through the main road that crosses the country.

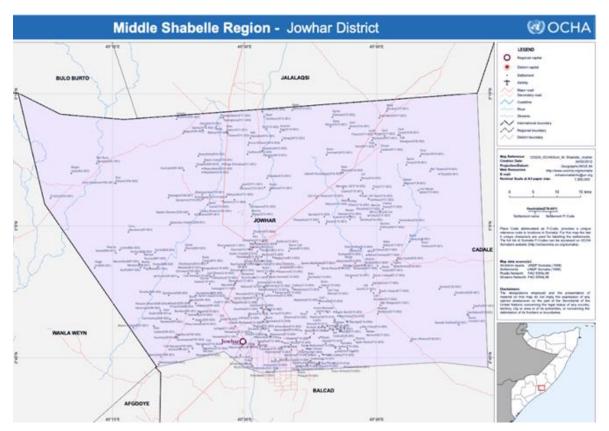


Figure 8. Johar Map

a. Climate condition

The average temperature is 32°c. the average rainfall is about 120mm per annum

Climate Graph

The chart below shows the mean monthly temperature and precipitation of Jowhar in recent years.

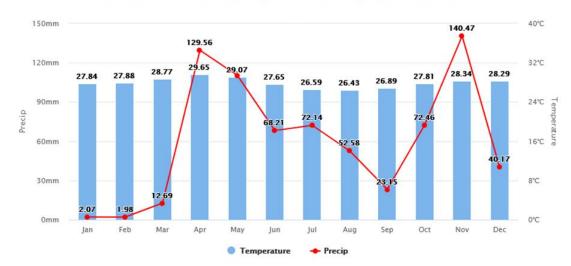


Figure 9. Climate Condition of Jowha

b. Edaphic (soils) and geological factors.

The soils are sandy loams.

c. Biotic factors (Flora & Fauna)

Flora: The main type of vegetation consists of wooded grasslands, desert bush lands Forbes and shrubs. The type of vegetation is highly depended on altitude, soil type and rainfall. The main vegetation within the proposed site is *Cordia senensis*, *Acacia spps* tree species and *Commiphora Spps*.

Fauna: the area has both domestic animals (camel, cattle, sheep and goats, donkeys, and poultry) and the wildlife (ostriches and other *Avian Spps*, antelopes, *dik-dik*, snakes, squirrels, honey badgers

d. Water resources & hydrology.

Water sources are boreholes, water.

e. Human environment and social amenities

Agricultural production is the main source of livelihood in Jowhar. The common types of agricultural products include maize, beans, rice, sesame, onions, and sorghum. Also, fruits that grow in the area such as mango, guava, lemon, banana and tomato and onion. Livestock production such as cattle, goats, camels, sheep, and poultry are also a productive sector. However, there is no official data about the exact livestock numbers in Jowhar.

The local markets functions relatively well and have approximately 1,000 stalls. A Chamber of Commerce oversees trading activities. The main market is in Hantiwadag village, and its name is Suuq Weyn ee Jowhar. It is an open market where people sell and buy different items ranging from food, clothing, utensils to medicines. There is also an important section of the market where they sell agricultural products such as maize, beans, sesame, and rice. The market also includes wholesale area for vegetables and fruits. This area is degraded and need to be improved. There is also a meat market area which is very small and congested. It exists a big need to extend the meat market to avoid people selling meet in unhealthy areas. The district has a designated area to sell and buy livestock animals such as camels, cattle, sheep, and goats. It is an open place, and most business transactions happen on Saturdays. When it rains it is often flooded so the stadium in Kulmis Village is a livestock market

2. Beledweyne District

Beledweyne is a district in the central Hiran region of Somalia. Its capital lies at Beledweyne. Beledweyne is a city in central Somalia. Located in the Beledweyne District, it is the capital of the Hiran region. The town is situated in the Shebelle Valley riverine near the Ethiopian border, some 210 miles north of Mogadishu. Beledweyne is divided by the Shebelle River into eastern and western sections.

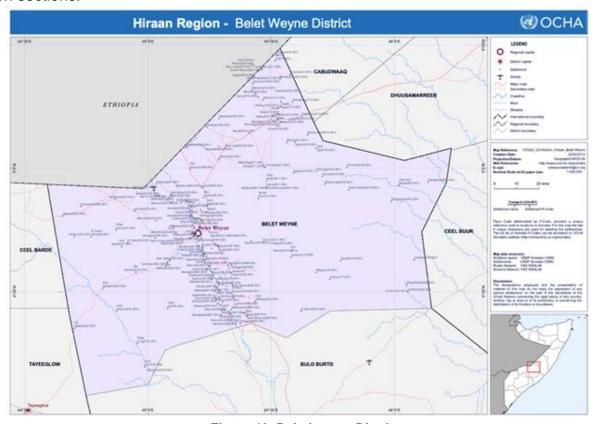


Figure 10. Beledweyne District

a) **Climate condition** In Beledweyne, the summers are short, sweltering, dry, and mostly cloudy; the winters are short, warm, and partly cloudy; and it is humid and windy year-round. Over the course of the year, the temperature typically varies from 69°F to 101°F and is rarely below 66°F or above 104°F.

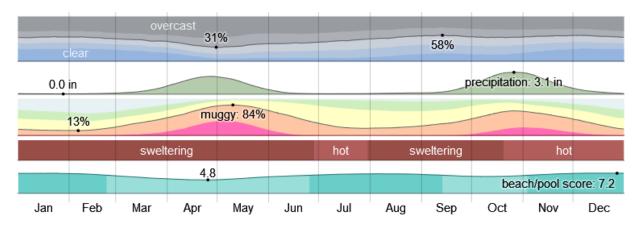


Figure 11. Climate condition for Beledyeme

3.3 Potential Environmental, social and climate Benefits

3.3.1 Potential Positive Social Impacts

RISE would reach 10,000 households (HHs), which is 60,000 direct beneficiaries. However, with the available initial allocation under the CRI, the project will target 5,000 HHs (50%) of the total project outreach or 30,000 direct beneficiaries. In line with IFAD targeting policy, at least 50% of the targeted beneficiaries will be women and 25% will be youth from the marginalized groups and affected crisis.

Youth/Gender: As mentioned above as well, some 25% of beneficiaries will be youth and 50% will be female. Youth and gender will mostly benefit from interventions under component one and assessments executed under the component should ensure that entry points identified are youth/gender sensitive (e.g., considering existing cultural norms, assets such as land holdings and resources). If RISE works with cooperatives/Water Users Association (WUA) then a minimum percentage (to be decided based on the feasibility study) of the membership should be either women or youth. It is anticipated the women will largely benefit from the small ruminants since the Somali society is a patriarchal society and in the family labour division, women are responsible for the rearing of small ruminants for subsistence and income from sale of milk and live animals as replacement stock or for meat. Additionally, youth will be introduced to modern agriculture as means of alternative livelihoods to curb illegal migration in dangerous routes and joining militia groups. other social benefits of the project include

- Increased crop and livestock productivity from improved farm equipment and implements. Consequently, the food and nutritional security will improve.
- Creation of self-employment in agri-business sector especially of youth and women.
- The project shall consider supporting and benefiting vulnerable members and minorities in the society.
- Improved skills in project implementation and leadership. The proposed project will involve
 the community and the local stakeholders throughout the project cycle equipping them with
 management skills in agriculture
- Other secondary business opportunities will arise like eateries, retail shops, agro veterinary stores, hardware's, and transport. The businesses shall improve the local economy
- Reduce crime and other vices (like use of drugs/Khat) by youth in the community since most youth shall be self-employed.

3.3.2 Potential Environmental Benefits

- Provision of farm inputs and equipment and training of farmers on improved crop production techniques will increase crop cover thus improving the micro-climate of the region. Some of the crop production will involve planting of trees (fruit trees) that will improve air condition and attracting rains.
- Use of solar system to pump water for irrigation purposes is an environmentally friendly and clean energy venture. This system shall part of the proposed project.
- The project proposes to construct water storage tanks. Conservation of water shall reduce over- abstraction leading to improved water in the environment. Use of irrigation system will also conserve the water.
- Use of fertilizers shall improve soil fertility subsequently increasing crop production. The crops act as carbon sinks (absorbing of CO₂ from the atmosphere) reducing the green house emission into the environment.
- Conservation of fodder will reduce over cultivation, thus improving the soil fertility

3.3.3 Potential climatic benefits

Crops (vegetation) will act as carbon sink and improve the micro-climate by absorbing carbon-dioxide thus reducing the negative effects of global warming. In the long run, due to improved vegetation cover, the regions shall experience increased amount of rainfall.

3.4 Potential Negative Environmental and climate Impacts and mitigation measures

The following are negative environmental and climate impacts/risks anticipated during the implementation of the project. Mitigation measures for the impacts and or risks have been identified and proposed.

3.4.1 Environmental and climate risks/impact and mitigation measures

1. **Air pollution** through:

a) Emissions (gases) from the walking tractors if not well maintained during the operation/implementation phase.

Risk: The emission includes the CO₂ that may be detrimental to the environmental. The emission will affect vegetation and crop yields and micro-organisms that are important in the growth of crops and improvement of soil fertility.

Proposed mitigation measures

- Prohibit unnecessary idling of the walking tractor when not in use
- Maintain periodically all walking tractors to be in good working condition to ensure minimal emissions,
- Provide appropriate PPE (dust mask) to Workers to avoid inhalation of the emissions.
 This shall prevent risk of respiratory diseases
- b) Noise and vibrations- pollution from the farm machineries. *Risk*: impair hearing ability of the farmers if exposed for a long time

Proposed mitigation measures

- Properly servicing and maintaining the equipment to limit noise levels,
- Provide appropriate PPE to workers (hearing protection/ear plugs) while using the tractor and any other farm machinery
- Encourage the workers to switch off engines whenever not in use
- Dusts and particulate emissions from the machineries
 Impact/Risk: respiratory tract condition in the workers or the community.

Proposed mitigation measures

- Ploughing to be conducted in the evenings or in the evening to reduce dust emission.
- Provision of the PPEs to the farmers on the farm to prevent inhaling the dust

2. Increased waste (solid and liquid)

Sources during construction of (storage facilities/fodder banks in Galmudug and Hirshabelle, construction of school wells in Galkacyo, installation of elevated water tanks, and water pipeline extension fencing of school gardens) include Cement empty bags, polythene carton empty bags, construction debris, liquid wastewater from the construction camp by workers. *Impact/Risks:* Potential soil and water contamination

Proposed mitigation measures

- Source good quality and durable construction material to reduce on generation of solid waste.
- Sensitize workers and communities on appropriate solid waste management
- Adopt solid waste segregation and minimization approach. Recycle and re-use the construction waste whenever feasible like in the case of empty bags and container,
- The construction waste should be safely disposed off, in designated waste disposal areas by the local administration.
- Provision of solid waste receptacles on site and appropriate sanitation facilities for construction workers at the construction site and the community.

3. Hazardous waste generated during the construction works and repairs

i. **Sources:** Waste oil, grease, fuel spills, and lubricants.

Impacts/risk

- Potential risks from handling of hazardous waste that could cause ill health or death.
- Contamination to the ground water that could be detrimental to the health of the workers and the community

Proposed mitigation measures

- Ensure the well construction or rehabilitation team is aware of the procedures to be followed when dealing with spills and leaks,
- Ensure proper storage, handling of hazardous waste (waste oil, lubricants, oil filters and fuel) and disposal by use of licensed hazardous waste contractor
- Temporarily storage on site of all hazardous or toxic substances will be in safe containers labelled with details of composition, properties, and handling information,
- Maintenance of construction vehicles, grout and any drilling machinery should be carried out at the contractors' yard/ specific designated paved areas and /or at nearby petrol stations to avoid soil contamination,
- Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute the ground water.

ii. Source

- Faulty solar equipment
- · Electrical and electronic cables and waste
- Damaged solar panel

Impacts:

- Any solid waste like the empty bags and containers should be disposed in designated areas or reused after cleaning thoroughly.
- Soil contamination from leachate of hazardous waste. This could affect human health in the long run.

Proposed mitigation measures

- Use solar panels that have longer life span,
- Optimize on the buyback option from the manufacturers/suppliers.
- Contract a licensed e-waste contractor to manage the e-waste generated from the faulty devices,
- Comply with e-waste guidelines on collection, sorting, recycling of e-waste and require them to follow good international industry practice for the waste being handled.

4. Increased effluent wastewater and surface run-off

Source: Stagnant (pool of water) and spillage of water around the water points/livestock water troughs and irrigation sites in the farms

Risks: Poor drainage may encourage mosquito breeding

Proposed mitigation measures

- Ensure appropriate drainage systems especially at the community livestock water troughs, domestic water points and at the irrigated farms (in the communities and at school farms)
- Ensure good control of the water released to the at the domestic water points and irrigation sites in the farms to avoid overflows and spillage at the community and at the schools
- Encourage collection of spilled water in a reservoir for use in establishment of community managed nurseries at the farms and in schools

5. **Possible** over exploitation of groundwater/ Ground water depletion

Climate risk

Water scarcity leads to

- Reduced economic potential
- Decrease in food production

- Higher competition among users
- Increased cost of water supply

Proposed mitigation measures

- Promptly detect and repair water pipe and tank leaks
- Ensure taps and irrigation pipes are not running when not in use and or auto-shut water taps to reduce water wastage.
- Install water conserving taps that turn-off automatically when water is not being used
- Install a discharge meter at water outlets to determine and monitor total water usage
- Alternate groundwater with rain harvested water usage
- · Adhere to safe yield of borehole
- Enforce water allocation plan

6. **Aquifer** degradation (from the school wells and the **six** wells) due to over-extraction of water. **As per SECAP standard 1, 2and 3**

Proposed mitigation measures

- Protect catchment to enhance water infiltration Soil and Water Conservation within catchment
- Adhere to safe yield of wells
- · Enhance natural and artificial recharge
- Construction of additional water tanks

7. **Contamination** of shallow wells and highly mineralized groundwater at the school and community.

Risks:

- Transmission of infectious diseases (e.g., from faecal contamination
- chronic/acute toxicity (agricultural/industrial chemical contamination)
- chronic/acute toxicity (natural geologic sources e.g., arsenic and fluoride)

Proposed mitigation measures

During construction and installation of the well

- Take water samples for chemical, bacteriological and arsenic water quality testing in an approved government laboratory
- Fence round the shallow wells
- Provide proper drainage of spilled water

During operation/use of the six shallow well

- Undertake immediate repairs of any cracks on the well cap
- Undertake water quality tests (physiochemical and bacteriological) on quarterly basis
- Provide a diversion trench for any storm water to protect the well cap
- 8. **Contamination** of water in pipeline extensions because of cracks and or damage **Risks** Infectious water-borne diseases (spread through faecal contamination of drinking water): typhoid, cholera, campylobacteriosis.

Proposed mitigation measures

During construction phase

- Avoid swampy areas in installation of the pipes or else use galvanized iron (GI) pipes in swampy areas to prevent any cracks of pipes and an eventual pipe water contamination
- Cover all the installed pipes/ refilling the excavated trenches with soil
- Conduct physio-chemical and bacteriological water quality tests at the end point of the pipeline extension to ascertain any contamination in the line
- Provide appropriate water treatment system

During the operation phase

Undertake water quality tests (physiochemical and bacteriological) on quarterly basis

Ensure immediate repairs of leakages to prevent any contamination of pipe water

For the water in the elevated water tanks

- Provide an overflow pipe
- Provide a Wash out pipe at the bottom of the tank
- Construct a suitable water collection chamber and provide adequate drainage for spilled water
- Conduct water quality analyses
- Sensitize the users on the need to boil drinking water
- Empty and clean the tank using chlorine twice a year
- Provide a cover lid in the inspection chamber

9. Loss of vegetation at construction site

Proposed mitigation measures

- Vegetation clearance shall be confined only to the construction areas.
- More indigenous trees shall be planted in alternative areas as a compensation measure and fodder commonly known as leaf scorch.

10. Excessive and disproportionate use of fertilizes

Impact/risks: result in stunted growth and withering or death to the crops

- Decrease the organic matter in the soil leading to soil acidification.
- Deplete the soil of essential nutrients resulting in less vitamin and mineral content in food crops and fodder
- Release the greenhouse gas nitrous oxide into the air.
- In case the fertilizers are washed to water bodies by run-off they could cause eutrophication of water bodies like rivers. These will result in reduced oxygen in the water leading to loss of aquatic biodiversity like fish (kill fish event), unpleasant odour/stink emanating from the water bodies

Proposed mitigation measures

- Training of farmers on applying appropriate amounts of fertilizers
- Soil testing to determine the type and quantities to be applied.

3.5 Potential negative social impacts and mitigation measures

The following are anticipated negative social impacts and suggested mitigation measures during the implementation of the project

1. **Accidents** (Occupational, Safety and Health issues OSH) causing injuries to farmers and construction workers (e.g., farmers while using farm tools like the sickles and post-harvest machineries can be injured accidentally), accident incidents during the construction of the irrigation system, installation of the solar systems, construction of elevated water tanks)

Proposed mitigation measures

SECAP standard 5 shall be applicable to the following mitigation measures

- The workers at construction site and farmers shall be sensitized or trained on precautionary measures to avoid injuries.
- Personal Protective Equipment and clothing to be provided to workers and farmers
- Recording and reporting of all accident occurrences to MoAl officers for necessary action to be taken.
- First aid facilities to be availed at the construction site and workers trained on how to use the kit.
- Appropriate signposting of the sites will inform workers of key rules and regulations to follow.

- All contractor's equipment, machinery and vehicles used on site should be inspected, repaired, and maintained
- Hire qualified construction workers

2. Gender Based Violence (GBV) risk.

In the processes of interacting with the community members during the distribution of farm inputs and construction works, gender-based violence like Sexual Harassment, Exploitation and Abuse (SHEA) could occur. E.g., soliciting of sexual favours to distribute farm inputs or carry out construction works.

Proposed Mitigation measures

- Conducting awareness on GBV to the community during the mobilization activity.
- Formation of a reporting and feedback mechanism
- Effective and on-going community engagement and consultation, particularly with women and girls.
- Management and Coordination: including integration of SEA and SH in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated Prevention of Sexual Exploitation and Abuse (PSEA) focal points in the project and trained community liaison officers
- Risk of inadequate grievances management. Leading to unsolved complains and dissatisfaction of the communities on the distribution of farm tools and implements and subprojects

Proposed Mitigation measures

- Conducting awareness on GBV to the community during the mobilization activity.
- Formation of a reporting and feedback mechanism
- Effective and on-going community engagement and consultation, particularly with women and girls.
- Management and Coordination: including integration of SEA and SH in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated Prevention of Sexual Exploitation and Abuse (PSEA) focal points in the project and trained community liaison officers
- 4. Risks related to **exclusion** of some stakeholder categories (VMGs, minority clans, disadvantaged individuals, women, youth, PWDs) from the consultation processes and the established subproject implementation structures.

Proposed mitigation measures

- Identification and inclusion of VMGs, minority clans, disadvantaged individuals, women, youth, PWDs in the distribution list.
- 5. Risks related to **disclosure** of appropriate information in line with the distribution of the farm input and construction works. Risks related to *ad hoc* consultations that are not timebound or sensitive to the needs and interests of stakeholders.

Proposed mitigation measures

- During the consultation a Stakeholder Engagement Plan (SEP) that is based on their locations (maps), drought situation crop, fodder, and livestock production
- Undertake timely and prior disclosure of the proposed projects.

- Document the information disclosure and stakeholder consultation processes (including venues, dates, minutes of discussions detailing consultation agenda, issues/concerns raised for each agenda item, and responses by the implementing agency.
- 6. Risks related to poor management of labour issues and non-adherence to labour laws, e.g., on Child Labour on the farms and construction site

Proposed mitigation measures

- Subproject managers and workers are sensitized and enforce, Labour laws and Child Labour laws
- Ensure that local employment opportunities are equitably accessible to all segments of the community,
- Ensure equal pay for equal work
- · Workplace Grievance Redress Mechanism in place.

CHAPTER FOUR LEGAL FRAMEWORK, PROJECT ADMINISTRATIVE STRUCTURE, MANAGEMENT, AND IMPLEMENTATION

4.1 Introduction

This section covers the legal and institutional framework, project administrated structure, Management, and implementation

4.2 Project Administrative structure

The project will be implemented by a Project Management Unit, comprising of Project manage, Monitoring, Evaluation Accountability and Learning (MEAL) officer, Environmental, social and climate safeguard expert (ESCS), Gender specialist, procurement officer and financial officer.

The ministry of agriculture and irrigation shall support the PMU through provision of technical advisory, backstopping and supervision.

4.3 Licences and permits

The state will issue Certificate of construction for all construction works under the proposed project. The proponent shall provide the necessary designs and other relevant documentation for processing and issuance of the certificate by the state.

4.4 Legal and institutional framework for the project.

The following policies and legislations are relevant to the implementation of the project including its ESCMF.

The Ninth National Development Plan (NDP) (2020-2024) - is a comprehensive development plan that aims to contribute to poverty reduction efforts that improved security and the rule of Law; Inclusive Economic Growth (including increased employment) and Improved Social Development. Besides, the plan has a cross-cutting imperative that is integrated into each pillar, representing an essential strategy for both targeting and prioritizing interventions. The plan prioritizes most strategic interventions with multiple benefits including economic benefits alongside environmental sustainability, conflict reduction, strengthened governance and reduced exclusion. Overall, the plan integrates environmental protection across development intervention design and implementation for the period. Climate Change resilience building is a key theme of the NDP-9, and the plan recognizes the threats posed by climate change and promotes mainstreaming of environment and climate change into development objectives.

The National Environment Policy 2020 - is a core document concerning the sustainable management of natural resources for Somalia. The government through the policy seeks to adopt environment conservation and mitigation and adaptation approaches to deal with climate change. This policy recognizes that many of the natural disasters in Somalia, such as floods, drought, are climate-related and that their negative impacts cut across all key sectors of the economy. It provides the necessary government interventions towards environmental conservation and climate change response in the areas of protection of biodiversity, reduction of GHGs emissions, waste, and clean technology.

National Climate Change Policy, 2020- This overarching national climate change policy serves as the pillar for comprehensive sectoral strategies and action plans. The policy offers a strategic direction, particularly on adaptation measures, social development, and mitigation of climate change impacts. The policy captures sectoral laws and strategies that form the legislative foundation for specific activities that need to be evaluated for potential improvements to enhance their ability to tackle climate change challenges and exploit emerging opportunities. The policy enables better coordination of climate change work in the country and provides opportunities for cooperation and collaboration between the national and sub-national levels of government as well as with development partners, international and regional institutions. Likewise, the policy

stipulates the country's vision and strategies that recognize the importance of climate change, international agreements, and national commitments on climate change.

Updated Nationally Determined Contribution (NDC) (2021) - developed in the context of the Paris Agreement, signals the country's commitment to a low emission and climate resilient sustainable development. The updated NDC considers adaptation and building resilience as a high priority due to the vulnerability of Somalia's economy and population to climate change-related shocks. The NDC identifies priority areas for climate change adaptation in Somalia from 2021 to 2030 based on Somalia's national and sub-national development objectives and plans.

Somali National Disaster Management Policy (2018) - aims to strengthen community resilience and preparedness for disasters and emergencies. The policy seeks to provide a legislative framework for disaster management within government institutions while also strengthening the coherence and co-ordination of humanitarian support from international partners and donor organizations. The framework provides guidelines for incorporating disaster risk reduction into the national development planning process, and will outline priority investments in disaster preparedness, early warning, mitigation, and recovery. This policy provides an entry point for exploiting synergies between disaster risk reduction and climate change adaptation by outlining required institutional support and developing project pipelines.

National Voluntary Land Degradation Neutrality Targets 2020 - The document developed under global initiative of the United Nations Convention to Combat Desertification (UNCCD), recognises land degradation caused by drought as a major impediment to national economic development as it adversely affects livestock and agriculture, which contributes heavily to its Gross Domestic Product (GDP). Some of the targets set under the document include; achievement of LDN by 2030 as compared to baseline 2015 (no net loss), an additional 10% territory has improved by 2030, an increase of National forest cover increased from 10.14% (2015) to 10.20% (2022) and maintained at 30% by 2030 through agroforestry and SLM, reduced consumption of biomass energy by half, reduced soil erosion, reduced conversion of forests and wetlands into other uses, restore and increase land productivity among others.

The UN Strategic Cooperation Framework Somalia 2020 - represents the commitment of the Federal Government of Somalia and the United Nations to work together to achieve peace, stability, and prosperity for all Somalis in support of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. The Cooperation Framework reflects the commitment of the United Nations in Somalia to advancing Somalia's peace and development priorities and fully aligning its support to the NDP-9 in a spirit of partnership, cooperation, transparency, and mutual respect, under the 2017 New Partnership for Somalia. The Cooperation Framework also serves as the United Nations' accountability framework to the Federal Government of Somalia and its people. The Cooperation Framework Strategic Priorities are Inclusive Politics and Reconciliation, Security and Rule of Law, Economic Development and Social Development. Environment and climate change actions are mainstreamed in the strategic priorities of the framework, particularly under Security and rule of law, economic development, and social development.

Somalia's National Biodiversity Strategy and Action Plan (NBSAP), 2015 - The Strategy developed under the Convention on Biological Diversity in 2015 has direct linkages with biodiversity and climate change response in Somalia. It aims to establish an understanding of drivers of biodiversity degradation and devise response measures. The strategy highlights among others gaps in capacity, policy and resource mobilization, and coordination for effective management and monitoring of biodiversity.

National Capacity Self-Assessment towards implementing Rio Conventions - The assessment outlines the key challenges Somalia faces in meeting the commitments outlined in the Rio Convention. This document highlights some of the key national-level capacity gaps for

responding to the challenges of climate change, biodiversity loss, ecosystem degradation and conflict and security.

The National Adaptation Plan of Actions (2013) - is the first national-level document that identifies urgent and immediate climate change adaptation needs of the most vulnerable groups through Somalia. It provides the starting point from which climate change adaptation can be mainstreamed into development plans as a critical strategy for attaining sustainable development and poverty reduction (MDG, 2010). The NAPA acknowledges and addresses the fact that climate change will have wide-ranging impacts within and across multiple sectors and that the knowledge and capacity to respond is lacking. The document presents an analysis of barriers facing the NAPA to climate change. The NAPA has three main objectives namely (1) Build community awareness on climate change (2) Increase monitoring and risk forecasting capacities and (3) Support the adoption of government policies and strategies to improve resilience to climate risks among vulnerable population groups (including women and children) and economic sectors.

Somalia Food Security & Nutrition Strategy 2020 -2025- This strategy developed by the Federal Ministry of Agriculture and Irrigation, Federal Government of Somalia aimed providing government commitments as well as to guide its institutions (at all levels); development partners, and other key stakeholders in their efforts to address food insecurity and malnutrition. The Somalia Nutrition Strategy (2020-2025) is in line with the NDP and other downstream policies and strategies and is strategically designed to address the triple burden of malnutrition (coexistence of overnutrition, undernutrition, and micronutrient deficiencies). In the strategy, the government aims to ensure that stability of food supply, access, and usage are safeguarded through the agriculture, livestock, fisheries, trade, health, infrastructure, social protection, and related socioeconomic sectors on yearly basis while investing in natural resource management and environmental conservation for long-term stability.

UN gender equality strategy 2018-2020- This strategy provides a framework for planned, systematic and collective attention to and action by the different UN entities on gender equality and women's empowerment, in line with global commitments and commitments in the diverse assistance and co-operation frameworks to Somalia. The Strategy responds to the current gender inequalities and related developmental challenges in Somalia and articulates the centrality of gender mainstreaming in the implementation of the assistance and cooperation frameworks of the UN. It also provides a framework and guidance for the promotion and institutionalization of gender mainstreaming. It calls for a greater accountability for delivering gender results. It offers practical tools and guidance on how to achieve this. The implementation plan of this Strategy provides in detail the actions, actors, and timeframe for realizing results and fulfilling the objectives and goal set forth in the Strategy.

4.5 Institutional arrangements on environment and climate change

The following institutions will be involved in the project implementation and the ESCMF.

Federal Ministry of Agriculture and Irrigation (MoAl)

The Ministry is responsible for creating an enabling environment for Somalis and other investors to develop the agricultural sector and improve the livelihoods of rural households, ensure food security while sustaining the natural environment. MoAl will be the Host Ministry and a key implementing partner for the project and plays a key role in national conservation efforts.

Federal Ministry of Environment and Climate Change

The newly created Federal Ministry of Environment and Climate Change (MoECC) is the national authority responsible for the formulation, management, oversight, coordination and effective implementation of environmental laws, policies, standards, and strategies. It promotes sustainable management and standards for protecting critical habitats, combatting desertification, enhancing stewardship and ownership, restoration, and utilization of natural resources, in accordance and collaboration with the relevant government structures at Federal and State levels.

Federal Ministry of Livestock, Forests and Rangelands

The Federal Ministry of Livestock, Forest and Rangelands has role to play in the conservation of national tree forest conservation, range management, grazing management systems in rural development programs, and contribution to drought and desertification combatting efforts. The ministry will play an important role be including guidance to the project implementation.

Federal Ministry of Planning, Investment and Economic Development

The ministry is responsible for coordinating all government and non-government agencies as well as developing medium and Long-term strategies and plans for sustainable economic development and growth. The ministry develops and monitors the National Development Plans, National Adaptation Plans, etc. while also seeking for donor support and funding of the national priorities.

Federal Member States

Federal Member States (FMS) of Galmudug, Hirshabelle and Puntland states. The FMS Ministries responsible for agriculture, environment and climate change have mandates and responsibilities over natural resources and local environmental issues and oversee policy development and implementation in their respective regions. These sub-national governments will play an important role in the ESCMF implementation

UN Agencies and International NGOs

Given their expertise in natural resources management and livelihoods, UN agencies such as FAO, UNDP and WFP can play important roles to improve livelihoods and food security of communities neighbouring the Pastoral Association (PA). FAO's SWALIM programme in partnership with local Land and Water Resources Information Management Centers (IMC) will also provide important information for the baseline work to be carried out for the land restoration activities of the project.

Religious groups, traditional leaders, women, youth, pastoral communities

At the start of the project, community level stakeholder mapping will be conducted to ensure full representation and participation of community groups in the project.

The private sector

The private sector in Somalia plays important role in creating employment opportunities including those related to environment conservation and climate change adaptation and mitigation. The government recognizes their role and thus they should be engaged in climate change discussions and policy implementation.

Despite the existing institutions, the country is faced with key challenges that undermine their effectiveness in addressing environment and climate change challenges in the country. The challenges include inadequately qualified staff; inadequate personnel; a low level of staff skills and knowledge on climate and disaster management; limited access to information due to inadequate information and computing technology skills; a lack of adequate physical assets, infrastructure, and transport; and limited capacity building. The country also lacks adequate operational coordination mechanisms for climate change, with weak linkages between MoECC and other government structures and sectors, hindering efforts to address environmental and climate challenges.

4.6 Multilateral Environmental Agreements (MEAs) and Regional Policies

The Government of the Republic of Somalia has ratified various Multilateral Environmental Agreements (MEAs) to join international communities' efforts to address key global environmental issues. These form part of Somalia laws for implementation. Below is summary of *relevant* MEAs which Somalia is a Party:

The Convention on Biological Diversity, 1992 - ratified by Somalia September 2009

- The United Nations Convention to Combat Desertification, 1992 ratified by Somalia in July 2002.
- The United Nations Framework Convention on Climate Change (UNFCCC), 1992 ratified by Somalia in September 2009
- Nagoya Protocol a landmark agreement in the international governance of biodiversity ratified by Somalia in January 2012 the Montreal Protocol on Substances that deplete the Ozone Layer, 1987 - ratified by Somalia August 2001.
- Cartagena Protocol on Biosafety ratified in August 2010
- Stockholm Convention on Persistent Organic Pollutants ratified in July 2010,
- CITES Convention on endangered species of wild fauna and flora ratified in December 1985
- Paris Agreement on Climate Change ratified by Somalia April 2016
- The Kigali Amendment to the Montreal Protocol (2016) ratified by Somalia in 2019
- Basel Convention on control of transboundary movement of hazardous waste ratified in 26 Jul 2010

At the regional level, the **African Union's Agenda 2063** and the AU climate change strategy commits to environment and climate change mainstreaming and calls on member countries to implement the Programme on Climate Action in Africa, including a climate resilient agricultural development programme. Somalia is also a member of Intergovernmental Authority on Development (IGAD) and must align with the IGAD's **Environment and Natural Resources Strategy**. The strategy seeks to improve the coordination of environment and natural resources management activities in IGAD member states and to enhance the integration of environmental and natural resources concerns into development frameworks.

4.7 IFAD's Environmental, Social and climate change standards

4.6.1 IFAD SECAP Procedure

IFAD prioritize social, environmental and climate change aspects to foster sustainability. The IFAD SECAP Vol 1 (2021) Edition lays out an improved framework and process for managing risks and impacts and integrating mainstreaming priorities into new IFAD- supported investments. All projects supported or co-financed by IFAD are required to comply with SECAP. This includes NSOs and projects implemented by non-state actors such as NGOs.

Key principles that guide IFAD's SECAP include:

- Not knowingly financing projects that would contravene national laws
- Not knowingly financing, directly or indirectly, activities mentioned in the IFAD exclusion.
- Identifying vulnerable people or groups that may be disproportionately affected by its projects
- Promoting the conservation, rehabilitation and sustainable use of natural resources and ecosystems in an integrated manner to ensure that IFAD operations do not lead to natural or cultural resource degradation.
- Recognizing the importance of addressing both the causes and the consequences of climate change in countries of operation.
- Minimizing adverse social and environmental impacts.
- Addressing gender-based violence and discrimination and promoting gender equality within its mandate.
- Ensuring stakeholder feedback, with emphasis on the participation of and benefits to women, youth, persons with disabilities and site-specific target groups

- Enhancing the livelihoods of indigenous peoples and other marginalized groups.
- Avoiding involuntary resettlement wherever possible.
- Promote sound agricultural and manufacturing processes.
- · Undertaking compliance monitoring.
- Ensuring transparency and accountability throughout the project life cycle.
- Mainstreaming social, environmental and climate sustainability into IFAD's project cycle through consistent application of a screening and assessment procedure.
- Supporting the efforts of borrowers/recipients/ partners to respect human rights, avoiding infringement on any human rights, and addressing adverse human rights risks and impacts caused by clients' business activities.

CHAPTER FIVE PROCEDURES FOR SCREENING, ASSESSMENT AND MANAGEMENT

5.1 Introduction

Screening is meant to check for potential environmental and social safeguard issues by assessing potential impacts and, through a new project specific ESCMP, identifying appropriate design mitigation measures. The outcome of the screening process is a review of the final sub-project proposal that will include:

- Compliance with the ESCMP and ESCMF as well as IFAD's SECAP guidance statements.
- Potential for the project to cause adverse environmental impacts.
- Potential for the project to cause adverse climate impacts.
- Potential for the project to cause adverse social impacts.
- Adequacy and feasibility of the proposed safeguard mitigation measures and monitoring plans, including any local communities plan or process framework for restrictions of inclusion.

In the event of sub-projects with moderate (and therefore manageable) environmental and social impacts, an environmental and/or social review should be undertaken, based on the IFAD SECAP and the ESCMP. Such a review will examine the sub-project's potential negative and positive environmental and social impacts as well as define any measures needed to prevent, minimize, or mitigate adverse impacts and improve environmental and social performance. In most cases, this will be a simple review by reference to existing reports and studies (if available), and through discussions with local communities and other stakeholders, if needed.

Sub-project proposals with medium (manageable) environmental and social impacts should include the following basic elements in the application and contain in the project specific ESCMP:

- A summary and description of the possible adverse effects that specific sub-project activities may occur.
- A description of any planned measures to avoid or mitigate adverse impacts, and how and when they will be implemented.
- A system for monitoring the environmental and social effects of the project.
- A description of who will be responsible for implementing and monitoring the mitigation measures.
- A cost estimate of the mitigation measures, which should be included in the sub-project proposal. The scope of any environmental and/or social review and related mitigation measures will be determined by the relevant (environmental/climate change) staff in consultation with technical experts where needed, via the sub-project screening and approval process.

Sub-project proposals with only minor or no adverse impacts do not need a separate review (or ESCMP). The following sections describe the contents of the screening forms.

5.2 **Screening** for Eligibility

IFAD's risk thresholds and exclusion list were taken into consideration in the screening process. Screening process for categorization of environmental and social impacts and classification of climate risks was undertaken for the proposed RISE project. The necessary actions to address the associated environmental, social and climate risks were considered.

The screening checklists were used in conjunction with the <u>exclusion list (Annex 5) in SEAP Vol 1 2021 edition pages 109 to 110.</u>

The screening is aimed at identifying the major social, environmental and climate impacts and risks associated with a project, defining the necessary steps for further analysis and identifying measures to enhance development opportunities and minimize risks and negative impacts.

5.2 Screening for Environmental and Social Impacts

Based on relevant SECAP guidelines as well as technical experience, an environmental and social screening form was developed for related subprojects. The screening checklist is presented in Annex 1, the results of the environmental and social impact screening showed that the RISE project falls under "Moderate Risk" category, signifying that, the potential adverse risks and impacts on human populations or the environment are not likely to be significant. This may be because RISE project is not complex or large, will not involve activities with high potential for harming people or the environment, and are located away from environmentally or socially sensitive areas.

The potential risks and impacts are: — Predictable and expected to be temporary or reversible; — Low in magnitude; — Site-specific, without the likelihood of impacts beyond the project life cycle; — Low probability of serious adverse effects to human health or the environment (e.g. they do not involve the use or disposal of toxic materials, or routine safety precautions are expected to be sufficient to prevent accidents); — The project's risks and impacts can be easily mitigated in a predictable manner.

5.3 Screening for Climate Impacts

A separate climate risk screening checklist form is also presented in Annex 2. The screening results in the proposed preliminary climate risk classification for the RISE project indicated a score of 6.06 "Substantial Risk", implying that the impacts from climate change may occur, but will be limited, transient or manageable. Financial, environmental, and social underperformance or failure is unlikely. The system has the capacity to manage volatility, shocks, stressors or changing climate trends

5.4 Impact Significance Rating

To determine the significance of impacts, the likelihood of an impact occurring is considered against the consequence or magnitude of the impact if it was to occur. Likelihood is defined as the frequency of an impact occurring.

Table 2 Impact Significant Rating.

Consequence	Definition
No Impact/No	 No impacts on biophysical and social environments / livelihood /
change	health / gender
_	No public concerns
	No legal issues
Negligible	 Low/minor impact on environment / livelihood / health / gender
	Minor social impacts
	No legal issues
Intermediate	Some level of impact on environment / livelihood / health / gender
	Social issues apparent
	May have legal implications
Severe	High level impacts on environment / livelihood / health / gender
	High public concerns or perceptions
	Legal non- compliance
Unknown	Extent of the impact cannot be determined at this point
	Apply precautionary principle

The chart below can assist to make a quick visual assessment of the significance of impacts, as well as the intervention.

Table 3. Significance of impacts

Consequence				
Likelihood	No Impact- No change	Negligible	Intermediate/ Moderate	Severe
Unlikely	Low significance	Low significance	Medium significance	High significance
Possible / less than annually	Low significance	Low significance	Medium significance	High significance
Occasional / at least annually	Low significance	Medium significance	Medium significance	High significance
Frequent / at least monthly	Low significance	Medium significance	High significance	High significance
Continuous, inevitable, daily irreversible	Low significance	Medium significance	High significance	High significance

In the case this project the impacts are medium and a standard ESCMP and ESCMF has been developed to manage the identified impacts.

CHAPTER SIX ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN (ESCMP) IMPLEMENTATION

6.1 Introduction

The chapter describes the subprojects, the implementation of ESCMP. Planning and implementation of the mitigation measures when the implementation of the measures will take place responsible persons for the proposed mitigation measures and cost. Details are presented in table 4 ESCMP matrix.

6.2 Specific Subprojects Require An ESCMP

Introducing and distributing production inputs, equipment, small ruminants, technological packages, and post-harvesting equipment to targeted farmer households shall require an ESCMP before the implementation of the component one activity,

6.3 ESCMP prepared before implementation of component two activities

The following component 2 activities shall be considered while preparing the ESCMP

- Delivery and installation of one major solar-powered irrigation system in Beleweyn district to improve year-round access to water for irrigation and allow for the cultivation of an additional 200 Hectares by smallholder farmers along the Shabelle river.
- Provision, distribution, and installation of 20 drip irrigation kits composed of drip pipes and elevated water tanks for smallholder cooperatives (particularly youth groups) covering at least 20 ha for high-value vegetable and fodder farming.
- Rehabilitation and installation of solar-powered pumping system on six (6) shallow wells complete with domestic and livestock water points.
- Delivery and installation of 15 elevated water tanks for domestic water storage in the targeted villages.
- Construction of two (2) storage facilities/fodder banks in Hirshabelle and Galmudug
- Procuring and distribution of fodder harvest and post-harvest machinery for smallholders.
 This includes the distribution of 3,000 sickles for harvesting fodder (one per beneficiary) and 360 small-scale fodder balling machines to aid in storing and transporting fodder.
- Construction/rehabilitation of school wells in Galkacyo North District (Puntland state) to establish school gardens.
- Installation of solar powered water system
- Installation of elevated water tank
- Installation of drip irrigation on the land allocated for the school garden
- Fencing of the school gardens and where possible, installation of piping and water taps for the schools and separate water point for the neighbouring communities as well training on good agricultural practices.
- Provision of horticultural seeds and organic fertilizers for the school gardens.

6.4 Planning and Implementation of Mitigation Measures

Mitigation for component one shall be planed for short-term. Implementation of the mitigation measures shall be undertaken during project activities.

6.5 When mitigation should take place, and who reviews and approves the plans

Mitigation measure shall take place during the implementation of the project. They will be reviewed by IP environmental and social safeguards officer and IFAD.

6.6 Specific ESCMP, Two-To-Three Safeguard Performance Indicators

For component one the performance indicator shall include number of farmers adopting new technologies with adequate Personal Protective Equipment and Clothing (PPE &C), the number

of farm implement, machineries procured and distributed to the farmers, tank installed, irrigation systems established and

6.7 Responsibility of implementing safeguard provisions of the specific subproject

- SADAR.
- Federal Ministry of Agriculture and irrigation; and
- State level Ministry of Agriculture.

6.8 Timing and cost of these procedures for the subproject

- Pre- implementation
- During construction
- During the operation phase
- Decommissioning phase

CHAPTER SEVEN INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

7.1 Roles and responsibilities for implementing the ESCMF

The roles and responsibilities of project staff, project partners and associated groups in implementation of this ESCMF are described below:

The Federal Ministry of Agriculture and Irrigation (MoAI) is the Host Ministry and key partner to this project. it will be involved in project implementation coordination. SADAR shall be the project implementation unit. The main roles MoAI will involve the following in the implementation of the Environment, Social and Climate Management Plans

- Ensure that the required assessments (ESIAs) and assessment report and the required management plan(s) are developed, disclosed for public consultation, and approved, and management measures are adopted and integrated during project implementation.
- Report transparently and accurately, on project progress against agreed work plans in accordance with the reporting schedule and required formats.
- Maintain documentation and evidence that describes the proper and prudent use of project resources in conformity to the signed Project Document and in accordance with applicable regulations and procedures
- Ensure all requirements of IFAD safeguards policy and national regulatory/policy frameworks and relevant international standards have been addressed
- Hold responsibility and accountability to IFAD for overall management of the project, including compliance with SECAP procedures.

7.2 Project Management Unit (PMU):

- The SADAR RISE project manager, environmental social and climate specialist the gender specialist will be involved in the monitoring of the measures identified in the ESCAF. The MoAl and Ministry of public works directors shall backstop and supervise implementation of measures defined in this ESCMF.
- Other roles of the PMU shall include assigning specific responsibilities for implementation
 of this ESCMF, including monitoring, and community consultations on the draft
 management plan(s) to the safeguards officer of the SADAR/PMU.
- Maintain relevant records associated with management of environmental and social risks, including updated Environment, Social and Climate Management Plans, impact assessments, evidence of consultations and FPIC, a log of grievances together with documentation of management measures implemented.
- Report to the MoAl, the PMU on the implementation of the ESCMF.
- Ensure that all service providers are informed of their responsibilities for the day-to-day compliance with the ESCMF.

7.3 Project Technical Committee (PTC):

PTC shall comprise the state line ministries and PMU and will be involved in the project as follows.

- Monitor implementation of this ESCMF and compliance with national and international regulations, and IFAD's social and environmental standards.
- Decision-making for the adoption of necessary measures including full integration of management measures within project outputs and annual work plans.
- Establish and support the Project level grievance redress mechanism to address any safeguards related grievances.
- Provide strategic guidance to implementation of the Project including oversight for safeguards and the implementation of this ESCMF.

7.4 IFAD

IFAD's role will be:

- Provide oversight on all matters related to safeguards.
- Ensure that the Compliance Review and the Stakeholder Response Mechanisms are operational during the lifetime of the projects.

- Ensure adherence to the environment and social safeguards for project activities implemented using funds channelled through IFAD's accounts and undertake appropriate measures to address any shortcomings.
- Verify and document that all IFAD SECAP requirements have been addressed.
- Provide technical guidance on implementation of this ESCMF and administrative assistance in recruiting and contracting expert safeguards services (as required) and monitor adherence of each project to the ESCMF and IFAD's policies and procedures.

7.5 Capacity building

- There is absence of sufficient human resource (personnel and technical capacity) in the specialized field of environment and climate change to effectively support implementation of the ESCMF. Therefore, the Project Manager, MEAL, and Gender specialist shall be trained of SECAP requirements.
- The Project Manager, M&E officer, MOAI personnel, responsible for monitoring mitigation measures in the ESCMF will be trained on the SECAP requirements prior to undertaking the monitoring and supervision activity.
- There is weak compliance and enforcement mechanisms of environmental regulations at the federal and state levels
- Lack of systemic approaches to environmental and climate change information management, sharing and access to data
- There is need for training of country level experts at the federal and federal member states levels on various topics of the ESCMF e.g., environmental assessments including ESCMP, climate vulnerability assessment, adaptation, and monitoring frameworks etc
- Project contractors need to be trained on safeguards and ESCMP and ensure mainstreaming environmental, climate change and social risk mitigation into project implementation and infrastructure development
- Individual independent consultants with relevant expertise in social and environmental safeguards will be engaged to support the completion of the ESIA and the ESCMP. These experts will provide an induction session for the Project Management Unit and all relevant project partners at federal and states levels, as needed, on safeguards responsibilities and approaches.
- IFAD project support team will provide advice to project teams as needed to support the implementation of this ESCMF and the preparation, implementation, and monitoring of social and environmental management plans/measures that it specifies.
- The PSC will have final responsibility for ensuring the integration of the management plans into the execution of the project at the federal and member states levels. The integration of those plans will need to be considered, particularly the institutional needs within the implementation framework for application of the management plan(s), including a review of the required budget allocations for each measure, as well as the authority and capability of institutions at different administrative levels (e.g., federal and member states), and their capacity to manage and monitor management plan implementation

CHAPTER EIGHT STAKEHOLDER ENGAGEMENT, INFORMATION DISCLOSURE AND GRIEVANCE REDRESS

8.1 Stakeholder Engagement

Relevant stakeholders will be consulted during the preparation of this ESCMF as part of the Project Document development. The stakeholders shall include Federal MoAI, State MoA, State Ministry of public works, regional government, farm cooperative societies, water users' association, village elders and religious leaders local CBOs, and NGOs.

The stakeholders were engaged through public meetings, focus group discussions (FGDs), telephone calls, emails, stakeholder workshops/fora, use of structured questionnaires, Key informant interviews (KIIs), household survey.

Key issues raised by stakeholders during the consultations include:

- The country is faced with problems of environmental degradation and adverse effects of climate change affecting socio-economic development. Thus, importance of environment and climate change as crosscutting issues
- Challenges of lack of resources and delayed funding, inaccessibility to accurate information on environmental and social problems, and absence of relevant policies and regulations to protect the environment by the Government at the federal and state level.
- The need for awareness and training on key environmental and climate change issues and relevant response measures
- The need for continued and sustained consultations with communities during implementation
- The importance of support the development of state level environment and climate change policies and plans
- The need for training of experts at the federal and federal member states levels on various topics of environment and climate change

In accordance with IFAD's SECAP requirements, this ESCMF and subsequent assessments and management plans will be disclosed publicly on the project website. These requirements for stakeholder engagement and disclosure will be adhered to during the implementation of this ESCMF, and the subsequent implementation of the resulting management plans. In addition, all concerns and complaints from stakeholders will be addressed in a timely manner through project level grievance redress mechanism.

8.2 Grievance Redress Mechanisms according to IFAD procedures.

8.1.1 IFAD's complaints procedures

IFAD's Social, Environmental and Climate Assessment procedures (SECAP) puts in place a complaints procedure to receive and facilitate the resolution of concerns and complaints regarding alleged non-compliance of its environmental and social policies, and the mandatory aspects of SECAP in the context of IFAD-supported projects. For all projects, IFAD requires stakeholders to inform all affected people about the IFAD complaints procedure in a form and language understandable to them. The procedures enable complainants' concerns to be resolved in a fair and timely manner through an independent process, via e-mail or by post.

Project-affected people may use the complaints procedure without retribution or reprisal, and the grievance and conflict-resolution system does not impede access to other judicial or administrative remedies available under national law or existing arbitration procedures. Any complaints of sexual harassment, sexual exploitation or abuse received through the complaint's procedure will be forwarded immediately to IFAD's Ethics Office for further action. For projects co financed with other development partners, IFAD will agree on a common approach to receiving, resolving, and reporting complaints, which will be reflected in the financing agreement and project implementation manual.

8.3 Project-level Grievance Redress Mechanisms

IFAD's policies require all IFAD project stakeholders to adopt easily accessible and inclusive project- level grievance redress mechanisms and facilitate the resolution of concerns and grievances related to environmental and social performance of the project. The project level grievance redress mechanisms will complement IFAD's complaints procedures

The Project management team will establish a project-level Grievance Redress Mechanism (GRM) during the first year of implementation. The full details of the mechanism will be agreed upon during the Inception Phase, a process that will be overseen by the Project Implementation unit at the Federal Ministry of Agriculture and Irrigation (MoAI).

Below is a general framework for Project-level Grievance Redress Mechanism:

Local communities and other interested stakeholders may always raise a grievance to the SADAR/PMU, MoAI, or IFAD. Affected local communities should be informed about the ESCMF provisions, including its grievance mechanism. Contact information of the RISE (related to grievance redress) at SADAR/PMU/MoAI and IFAD should be made publicly available.

Grievances should be made to the SADAR/PMU or at the Federal Ministry of Agriculture and Irrigation (MoAI)/Ministry of Agriculture, who should respond to grievances in writing within 15 calendar days of receipt. The project will utilize Community Development Associations (CDAs) established or revived through the project to resolve any conflicts related to the safeguards during implementation. If conflicts are not effectively addressed at the community level, the SADAR/PMU will follow the formal project committees. Claims should be filed, included in SADAR/PMU, and a copy of the grievance should be provided to the MoAI, SADAR/PMU contact who must in turn forward a copy to the IFAD. The project safeguard's officer will undertake the preliminary assessments of the claims including against IFAD's safeguards policy. The details of the claims are then presented to the PSC (GRM sub-committee) for deliberation and resolution. The decision must be communicated by the SADAR/PMU to the claimant within 15 calendar days of receipt, and claims will be filed and included in project monitoring.

If the claimant is not satisfied with the response from the SADAR/PMU, the grievance may be submitted to the IFAD country office.

Interested stakeholders may raise a grievance at any time to the Project Coordination Unit, the Implementing Entity (IFAD), Executing Agency (MoAI) or the SADAR

Monitoring - Files for each Grievance will be available for review by the Claimant and other Stakeholders involved in the Grievance, or their designated representative(s). Appropriate steps will be taken to maintain the confidentiality of the Claimant if previously requested. The GRM will provide periodic updates to the Claimant regarding the status and current actions to resolve the Grievance

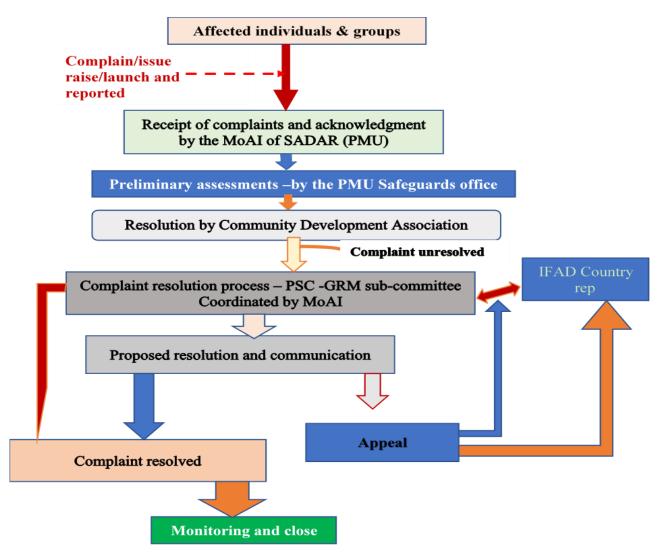


Figure 12: Project level grievance redress mechanism framework

CHAPTER NINE COSTS AND BUDGETARY CONSIDERATIONS

9.1 Introduction

The mitigation measures and monitoring will adequately be funded, the ESCMP should contain preliminary cost estimates. Once the construction and operational activities have been well defined the ESCMP shall be revised. Information will be provided on the responsibilities for reporting, work plan, procurement plan, cost estimates and mechanisms for corrective action.

Budget for implementation of the ESCMF is integrated into the respective project components budget. The estimated costs below include specific costs required for ESCMF (meetings, trainings, publications etc) and the project teams involved in the implementation of the ESCMF.

Table 4: Administration Costs

Activities	Budget In US\$ per Year
ESC Safeguards Gender, Project Manager and MEAL officers-to be trained on	2,500
SECAP regulations and undertake supervisor	
ESIA & ESCMP for the infrastructures -contractual	3,500
Travel expenses/DSA for national/international consultants	2,500
Training workshops expenses -Institutions & communities	3,400
Translation and publication of ESCMP issues	500
TOTAL	12,400

9.2 Monitoring and evaluation arrangements

Reporting on progress of issues in the ESCMF and specifically implementation of Environment, Social and Climate Management Plans will be documented in the project quarterly reports and annual project implementation reports. The management plans will specify monitoring and evaluation parameters. The Social and Environment Safeguards Officer and Project Manager will be responsible for implementation and compiling reports on the ESCMF implementation. Special focus will be provided to strengthen the capacity of national institutions and federal member state institutions to monitor environmental and social considerations and enhance decision-making.

In line with SECAP policies, IFAD will monitor the implementation of environmental and social management plans, the effectiveness of stakeholder engagement by executing entity and the effectiveness of environmental and social considerations in project procurement through implementation of the project.

Key components for monitoring and evaluation of the ESCMF are:

- Track progress of ESCMF implementation through project's quarterly and annual progress reports
- Development of targeted ESIA assessments and report, and management plan(s)
- Implementation of management measures and monitoring of potential impacts identified in targeted assessments, in line with the subsequent management plans.
- Document lessons learnt and best practices regarding social and environmental risk management
- Project review and consideration of potential risks and mitigation measures
- Review of other planning documents (e.g., Gender Action Plan, capacity-building plans, consent agreements)
- Quality assurance during supervision missions by IFAD to identify project strengths and weaknesses and to inform management decision making to improve the project.

CHAPTER TEN ENVIRONMENT, SOCIAL AND CLIMATE MANAGEMENT PLAN MATRIX.

10.1 Introduction

The ESCMP matrix shall be integrated into the project's implementation manual or developed as a stand-alone guidance document for the project management unit late in the design stage. The cost estimates shall be integrated in the implementation budget of the subproject

Table 5. RISE Proposed Project ESCMP

Environmental/Social and climate	Recommended	Public Consultation	Responsible	Means of	Frequency of	Cost
Impacts	Mitigation/Enhancement measures	Activities	Institution in Implementation Phase	Verification (Monitoring and reporting)	Verification	Estimate in (US\$)
Social impacts			1	,		
1. Accidents (Occupational, Safety and health issues OSH) causing injuries to farmers and construction workers (e.g., farmers while using farm tools like the sickles can be injured accidentally)	 The workers at construction site and farmers shall be sensitized or trained on precautionary measures to avoid injuries. Personal Protective Equipment and clothing (PPEs&C) to be provided to workers and farmers Recording and reporting of all accident occurrences to MoAI officers for necessary action to be taken. First aid facilities to be availed at the construction site and workers trained on how to use the kit. Appropriate signposting of the sites will inform workers of key rules and regulations to follow, All contractor's equipment, machinery and vehicles used on site should be inspected, repaired, and maintained Qualified personnel to be hired. 	• Farmers and workers trainings on the OSH including use of first aid kit and PPEs and C	SADAR/PMU Contractors Federal MoAl and Federal MoH Department of public health and sanitation Sanitation	Presence of training manual Availability of first aid kit OSH guidelines Signpost in place Certificates of qualified workers at the construction site A list of PPEs &C issued to the workers and farmers.	At the onset and continuous during the implementation of the project	3,500 for the mitigation measures mentioned

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
2. Risk of inadequate grievances management. Leading to unsolved complains and dissatisfaction of the communities on the distribution of farm tools and implements and sub-projects	 Prepare a subproject level timebound Contractor's GRM in consultation with relevant stakeholders at the lowest tier. Have a subproject level GRM Focal Point to be responsible for receiving, logging/registering, submitting to the responsible tier for resolution and responding to and updating complainants on resolution status Sensitize all stakeholder categories on the GRM and encourage them to make use of it Ensure adequate and proportionate representation of VMGs and vulnerable individuals in the local grievances handling committee. Ensure all reported grievances are logged, dated, processed, resolved, and closed out in a timely manner, or escalated to other levels. Ensure the GRM provides for confidential reporting of particularly sensitive social aspects such as GBV, as well as anonymity for those who wish to report anonymously. 	Stakeholder consultation and public participation in the development of the GRM	SADAR/PMU Contractors- (for the construction activities) Community members (farmers and livestock keepers) MoAI	SECAP for reference	At the onset and continuous during the implementation of the project	2,000 for the mitigation measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
3. Gender Based Violence (GBV) risk. In the processes of interacting with the community members during the distribution of farm inputs and construction works, gender-based violence like Sexual Harassment, Exploitation and Abuse (SHEA) could occur. E.g., soliciting of sexual favours to distribute farm inputs or carry out construction works.	 Conducting awareness on GBV to the community during the mobilization activity. Formation of a reporting and feedback mechanism Effective and on-going community engagement and consultation, particularly with women and girls. Management and Coordination: including integration of SEA and SH in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated Prevention of Sexual Exploitation and Abuse (PSEA) focal points in the project and trained community liaison officers 	 Public participation meetings on awareness of GBVs Workshops for workers to sensitize them on GBV issues and how to address them 	SADAR/PMU Contractors- (for the construction activities) Community members (farmers and livestock keepers) MoAI	Training manual SECAP	At the onset and continuous during the implementation of the project	1,500 for the mitigation measures
4. Risks related to exclusion of some stakeholder categories (VMGs, minority clans, disadvantaged individuals, women, youth, PWDs) from the	 Identification and inclusion of VMGs, minority clans, disadvantaged individuals, women, youth, PWDs in the distribution list. 	Holding meetings with local administration/leaders to identify the stakeholder	 SADAR/PMU Community members (farmers and 	Labour management plan in place A list of varied stakeholder	At the beginning of the project	2,000 for the mitigation measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
consultation processes and the established subproject implementation structures		categories in each community for inclusion in the project activities	livestock keepers) • Leaders (local administrators- chiefs, religious leaders) • MoAI	categories to be including as beneficiaries of the project		
 (a) Risks related to disclosure of appropriate information in line with the distribution of the farm input and construction work (b) Risks related to ad hoc consultations that are not timebound or sensitive to the needs and interests of stakeholders. 	During the consultation a stakeholder engagement plan (SEP) that is based on their locations (maps), drought situation, crop, fodder, and livestock production Undertake timely and prior disclosure of the proposed projects. Document the information disclosure and stakeholder consultation processes (including venues, dates, minutes of discussions detailing consultation agenda, issues/concerns raised for each agenda item, and responses by the implementing agency)	Holding public meeting to disclose the project	SADAR/PMU Community members (farmers and livestock keepers) Leaders (local administrators- chiefs, religious leaders) IFAD official s	Report including venues, dates, minutes of discussions detailing consultation agenda, issues/concerns raised for each agenda item, and responses by the implementing agency,	At the beginning of the project	3,000 for the mitigation measures
6. Risks related to poor management of labour issues and non-adherence to labour laws, e.g., on Child Labour on the farms and construction site	 Subproject managers and workers are sensitised and enforce, Labour laws and Child Labour laws Ensure that local employment opportunities are equitably accessible to all segments of the community, Ensure equal pay for equal work 	Meeting with contractors and sensitizing them on labour laws and employment of the locals on for unskilled works	SADAR/PMU Community members (farmers and livestock keepers) MoAI Leaders (local administrators- chiefs,	A copy of labour laws List of employees at the construction site	On the onset of the project implementation	3,000 for the mitigation measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
	Workplace Grievance Redress Mechanism in place		religious leaders) • IFAD official			
Totals for the Social impact implem			II 7 12 Ciliciai	<u> </u>		15,000
Environmental/climate impacts.						
1. Air pollution through a) Emissions (gases) from the walking tractors if not well maintained during the operation/implementation phase. Risk: The emission includes the CO ₂ that may be detrimental to the environmental	Prohibit unnecessary idling of the walking tractor when not in use Maintain periodically all walking tractors to be in good working condition to ensure minimal emissions, Provide appropriate PPE (dust mask) to Workers to avoid inhalation of the emissions. This shall prevent risk of respiratory diseases.	Meetings with the contractors and sensitizing them on the mitigation measures during construction Awareness of farmers through public meetings on the use of PPEs.	SADAR/PMU Community members (farmers and livestock keepers) MoAI Contractors	Training manual List of participants (Farmers)	Onset and during the implementation of the activities	1,200 for the mitigation measures
b) Noise and vibrations- pollution from the farm machineries. **Risk*: - impair hearing ability of the farmers if exposed for a long time**	 Properly servicing and maintaining the equipment to limit noise levels, Provide appropriate PPE to workers (hearing protection/ear plugs) while using the tractor and any other farm machinery Encourage the workers to switch off engines whenever not in use 					
c) Dusts and particulate emissions from the machineries Impact/Risk: respiratory tract condition in the workers or the community.	 Ploughing to be conducted in the evenings or in the evening to reduce dust emission. Provision of the PPEs to the farmers on the farm to prevent inhaling the dust 					

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
2. Increased waste (solid and liquid) Sources during • Construction of (storage facilities/fodder banks in Galmudug and Hirshabelle, construction of school wells in Galkacyo, installation of elevated water tanks, and water pipeline extension fencing of school gardens) include Cement empty bags, polythene carton empty bags, construction debris, liquid wastewater from the construction camp by workers • Agricultural waste. Like crop residues, value addition and processing waste Impact/Risks: Potential soil and water contamination	 Source good quality and durable construction material to reduce on generation of solid waste, Sensitize workers and communities on appropriate solid waste management Adopt solid waste segregation and minimization approach. Recycle and re-use the construction waste whenever feasible like in the case of empty bags and container, The construction waste should be safely disposed off, in designated waste disposal areas by the local administration, Provision of solid waste receptacles on site and appropriate sanitation facilities for construction workers at the construction site and the community. Compost pit/heap for the decomposing organic agricultural wastes 	Meetings with the contractors and sensitizing them on the mitigation measures during construction stage Awareness of farmers through public meetings on proper disposal of agricultural wastes	SADAR/PMU Community members (farmers and livestock keepers) MoAI Contractors	Report showing the list of farmers attendance Presence of training manual	At least every quarter for the farmers. For the contractor every week during the construction works	3,000 for the mitigation measures
3. Hazardous waste generated during the construction works and repairs	 Ensure the well construction or rehabilitation team is aware of the procedures to 	• Public meeting with contractors and workers and sensitizing them of	SADAR/PMUContractors and the workers	Report showing the list of farmers attendance Presence of	At least every quarter for the farmers.	4,000 for the mitigation measures
i. Sources: Waste oil, grease, fuel spills, and lubricants.	be followed when dealing with spills and leaks, • Ensure proper storage,	mitigating of the hazardous waste generated during the	MoAI Federal MoH department of	training manual	For the contractor every week during the	
Impacts/risk	handling of hazardous	construction works,				

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
 Potential risks from handling of hazardous waste that could cause ill health or death. Contamination to the ground water that could be detrimental to the health of the workers and the community 	waste (waste oil, lubricants, oil filters and fuel) and disposal by use of licensed hazardous waste contractor • Temporarily storage on site of all hazardous or toxic substances will be in safe containers labelled with details of composition, properties, and handling information, • Maintenance of construction vehicles, grout and any drilling machinery should be carried out at the contractors' yard/ specific designated paved areas and /or at nearby petrol stations to avoid soil contamination, • Construction vehicles and machinery will be washed only in designated areas where run-off will not pollute the ground water. • Any solid waste like the empty bags and containers should be disposed in designated areas or reused after cleaning thoroughly.	like during the installation of the solar panels	public health and sanitation		construction works	
ii. SourceFaulty solar equipmentElectrical and electronic cables and wasteDamaged solar panel	 Use solar panels that have longer life span, Optimize on the buyback option from the manufacturers/suppliers. 					

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
Impacts Soil contamination from leachate of hazardous waste. This could affect human health in the long run. 4. Increased effluent wastewater	 Contract a licensed e-waste contractor to manage the e-waste generated from the faulty devices, Comply with e-waste guidelines on collection, sorting, recycling of e-waste and require them to follow good international industry practice for the waste being handled, Ensure appropriate 	• Public meeting with	SADAR/PMU Contractors	Report showing	At least every	1,200 for
and surface run-off Source: Stagnant (pool of water) and spillage of water around the water points/livestock water troughs and irrigation sites in the farms Risks: Poor drainage may encourage mosquito breeding	drainage systems especially at the community livestock water troughs, domestic water points and at the irrigated farms (in the communities and at school farms) • Ensure good control of the water released to the at the domestic water points and irrigation sites in the farms to avoid overflows and spillage at the community and at the schools • Encourage collection of spilled water in a reservoir for use in establishment of community managed nurseries at the farms and in schools	contractors and workers on sensitization on mitigation of the hazardous waste generated	Contractors and the workers MoAI Federal Ministry of environment and Climate Change	the list of farmers attendance • Presence of training manual	quarter for the farmers. For the contractor every week during the construction works	the mitigation measures
Possible over exploitation of groundwater/ Ground water depletion	Reference shall be made to hydrogeological report for recommendations	Public meeting with contractors and workers and	SADAR/PMU Contractors and the	Report showing the list of farmers	At least every quarter for the farmers.	1,000 for the mitigation
Climate risk	10. 1000Hillionadiono	sensitizing them of	workers	attendance		measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
Water scarcity leads to	 Promptly detect and repair water pipe and tank leaks Ensure taps and irrigation pipes are not running when not in use and or auto-shut water taps to reduce water wastage. Install water conserving taps that turn-off automatically when water is not being used Install a discharge meter at water outlets to determine and monitor total water usage Alternate groundwater with rain harvested water usage Adhere to safe yield of borehole Enforce water allocation plan. 	mitigating of the hazardous waste generated during the construction works, like during the installation of the solar panels	• MoAI	Presence of training manual Hydrogeological survey report	For the contractor every week during the construction works	
6. Aquifer degradation (from the school wells and the six wells) due to over-extraction of water.	 Reference shall be made to hydrogeological report for recommendations. Protect catchment to enhance water infiltration Soil and Water Conservation within catchment Adhere to safe yield of wells Enhance natural and artificial recharge Construction of additional water tanks Training of the PMCs to 	• Public meeting with contractors and workers and sensitizing them of mitigating of the hazardous waste generated during the construction works, like during the installation of the solar panels	SADAR/PMU Contractors and the workers Federal Ministry of water Federal MoAI Community Project Management committee (CPMC)	Report showing the list of farmers attendance Presence of training manual Hydrogeological survey report	At least every quarter for the farmers. For the contractor every week during the construction works	2,000 for the mitigation measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
7. Contamination of shallow wells and highly mineralized groundwater at the school and community. Risks: Transmission of infectious diseases (e.g., from fecal contamination) - chronic/acute toxicity (agricultural/industrial chemical contamination) - chronic/acute toxicity (natural geologic sources e.g., arsenic and fluoride)	manage the water resources prudently. • Establishment of by-laws and regulations on use of the water points • Establish automated water point to reduce misuse of water and wastage During construction and installation of the well • Take water samples for chemical, bacteriological and arsenic water quality testing in an approved government laboratory • Fence round the shallow wells • Provide proper drainage of spilled water • Development of a Water quality assurance plan (WQAP) During operation/use of the six shallow well a) Undertake immediate repairs of any cracks on the well cap b) Undertake water quality tests (physiochemical and bacteriological) on quarterly basis c) Provide a diversion trench for any storm water to protect the well cap	•Workshops with the contractors on mitigation of the impact and risks •Meetings with contractor on the issue of Water quality	- Federal and state level MoAI - Federal Ministry of Health, department of public health and sanitation - The community members and the Community Project Management committees (CPMCs)	- WQAP in place - Training report and attendants' lists - Water quality test report	On the onset and continuous during the implementation of the project	3,500 for the mitigation measures
Contamination of water in pipeline extensions because of cracks and or damage	During construction phase Avoid swampy areas in installation of the pipes or	 Workshops with the contractors on mitigation of the impact and risks 	- SADAR - MoAI	WQAP in place Training report and attendants' lists	On the onset and continuous during the	3,000 for the mitigation measures

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
Contamination of the elevated water tanks by the avian droppings and dust Risks Infectious water-borne diseases (spread through fecal contamination of drinking water): typhoid, cholera, campylobacteriosis	else use galvanized iron (GI) pipes in swampy areas to prevent any cracks of pipes and an eventual pipe water contamination Cover all the installed pipes/ refilling the excavated trenches with soil Conduct physio-chemical and bacteriological water quality tests at the end point of the pipeline extension to ascertain any contamination in the line Provide appropriate water treatment system Development of a water quality assurance plan During the operation phase Undertake water quality tests (physiochemical and bacteriological) on quarterly basis Ensure immediate repairs of leakages to prevent any contamination of pipe water For the water in the elevated water tanks Provide an overflow pipe Provide a Wash out pipe at the bottom of the tank Construct a suitable water collection chamber and provide adequate drainage for spilled water Conduct water quality analyses Sensitize the users on the need to boil drinking water	•Meetings with contractor on the issue of Water quality	- Federal Ministry of water - Federal Ministry of health, department of public health and sanitation - The community members and the - CPMCs	- Water quality test report	implementation of the project	

Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)
	 Empty and clean the tank using chlorine twice a year Provide a cover lid in the inspection chamber 					
Loss of vegetation at construction site	Vegetation clearance shall be confined only to the construction areas. More indigenous trees shall be planted in alternative areas as a compensation measure.	Workshops with the contractors on mitigation of the impact and risks Public meeting to sensitize the community on conservation of trees and land scaping	 SADAR MoAI Federal Ministry of Environment The community members and the CPMCs 	Reports on the type of trees and number replanted	On the onset and continuous during the implementation of the project	1,200 for the mitigation measures
 10. Excessive and disproportionate use of fertilizes Impact/risks Result in stunted growth and withering or death to the crops and fodder commonly known as leaf scorch. decrease the organic matter in the soil leading to soil acidification. deplete the soil of essential nutrients resulting in less vitamin and mineral content in food crops and fodder release the greenhouse gas nitrous oxide into the air. In case the fertilizers are washed to water bodies by run-off they could cause eutrophication of water bodies like rivers. These will result in reduced oxygen in the water leading to loss of aquatic biodiversity like fish (kill fish event), unpleasant odour/stink emanating from the water bodies 	Training of farmers on applying appropriate amounts of fertilizers Soil testing to determine the type and quantities to be applied.	Public meeting with the farmers on appropriate amount of fertilizer application Meetings with contractor on the issue of Water quality	- MoAI - The community members and the - CPMCs	Training report and attendants' lists Water quality test report Agricultural best practices manual available	On the onset and continuous during the implementation of the project	2,500 for the mitigation measures

	Environmental/Social and climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification (Monitoring and reporting)	Frequency of Verification	Cost Estimate in (US\$)	
Environmental/climate impacts and risk mitigation measures estimated budget								
	Grand Total (cost integrated in the s	subproject budget)					37,600	

ANNEX

Annex 1. Environmental and Social Safeguards Screening Checklist

Annex 1. Environmental and Social S Environmental and Social Safeguards	No, Yes	If Yes or Unsur		If Relevant for	Tool Link	
	Unsure	Likelihood	Consequence	Procurement (include action)		
General data sources provide national and site sperisks associated with project locations and targeted These are:	GMAP: https://gmaptool.org/ INFORM: https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Results-and-data/moduleId/1782/id/419/controller/Admin/action/Results UHRI: https://uhri.ohchr.org/en/					
The Global Map of Environmental & Social Risk rapid environmental and social due diligence assoc strategic sourcing, financing, and risk management INFORM, a global, open-source risk assessment fo between the Inter-Agency Standing Committee Tas Commission. It can support decisions about preven Universal Human Rights Index (UHRI) offers and well as up-to-date observations and recommendation protection.						
The lists of sources provided are not exhaustive an Biodiversity	d other local o	latabases/maps/to	·	Yes/no/manual	Tool Link	
other services that are important to both the ecosys is a key element in building resilience capacities of support the identification of risks and opportunity in UN Biodiversity LAB - a platform for building partr governments have access and capacity to use cutti decisions. World Resource Institute - Resource Watch featuresources and citizens. Users can visualize challent water risk to state instability, air pollution to human Global Forest Watch is an online platform that proedge technology, this tool allows access to near reatthe world.	Biodiversity is essential for the maintenance of ecosystem services, such as the provision of water and food, as well as other services that are important to both the ecosystems themselves and human life. Diversity in agroecological systems is a key element in building resilience capacities of rural families and their farming systems. 3 dataset are proposed to support the identification of risks and opportunity in the project area, these are: UN Biodiversity LAB - a platform for building partnerships among data providers and data users to ensure that governments have access and capacity to use cutting-edge spatial data to make key conservation and development					
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?						
1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g.	No					

Environmental and Social Safeguards	No, Yes	If Yes or Unsure	9	If Relevant for	Tool Link
, and the second	Unsure	Likelihood	Consequence	Procurement (include action)	
National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?				,	
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?	No				
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	No				
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?	No				
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No				
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No				
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Yes	likely	limited	Yes	
Resource Efficiency and Pollution Prevention				Yes/no/manual trigger.	Tool Link
Resource efficiency is necessary to avoid, minimize substances and materials, including pesticides, tog climate pollutants. These questions shall also ident resource efficiency. The World Resource Institute planet's resources and citizens. Users can visualize poverty, water risk to state instability, air pollution to	ether with the ify, where fease provides hune challenges fa	project-related emi sible, project-related dreds of data sets acing people and the	issions of short- an d opportunities for all in one place on	d long-lived improvements in the state of the	World Resource Institute: https://resourcewatch.org/
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No				

Environmental and Social Safeguards	No, Yes	If Yes or Unsu	re	If Relevant for	Tool Link
· ·	Unsure	Likelihood	Consequence	Procurement (include action)	
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc.)	No				
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No				
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	No				
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?					
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	likely	minor	Yes	
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	Yes	possible	minor	Yes	
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No				
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	No				
Cultural Heritage				Yes/no/manual trigger.	Tool Link
Preserve and safeguard Cultural Heritage requires supported projects from altering, damaging, or rem the presence of Cultural heritage the following tools	UNESCO World Heritage List: http://whc.unesco.org/en/list/ Intangible Cultural Heritage: https://ich.unesco.org/en/lists				
UNESCO World Heritage List - The World Heritage World Heritage Convention, has developed precise has mapped them in this tool, which could support affected area. UNESCO List of Intangible Cultural Heritage and (internationally) recognized intangible cultural heritage.	criteria for the the PDT to ide Register of g	e inscription of pro entify location and	pperties on the World type of properties in	d Heritage List and n the project	

Environmental and Social Safeguards	No, Yes	If Yes or Unsure	9	If Relevant for	Tool Link
· ·	Unsure	Likelihood	Consequence	Procurement (include action)	
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	No				
3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	No				
3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No				
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No				
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No				
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No				
Indigenous peoples				Yes/no/manual trigger.	Tool Link
IFAD's comparative advantage in working with indigenous and in its targeting and people-centred approach, we conditions of poor rural people. In order to identify international Work Group for Indigenous Affairs communities, together with the challenges and progun Special Rapporteur on the rights of IP: Report	which takes into indigenous com Provides cou gress they are o	account the differ nmunities in the pr entry specific inforr currently facing	rentiated and conte oject affected area nation on the prese	xt-specific	International Work Group for Indigenous Affairs: https://www.iwgia.org/en/ UN Special Rapporteur on the rights of IP: https://www.ohchr.org/EN/Issues/IPeoples/SRIndigenousPeoples/ Pages/SRIPeoplesIndex.aspx
world, including updates on new laws, agreements measures to ensure the rights of indigenous people	and internation				
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	No				
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	No				

Environmental and Social Safeguards	feguards No, Yes If Yes or Unsure If Re		If Relevant for	Tool Link	
	Unsure	Likelihood	Consequence	Procurement (include action)	
4.3 Could the project result in impacts on the	No			(include action)	
rights of indigenous peoples or to the lands,	NO				
territories and resources claimed by them?					
4.4 Could the project result in the utilization	No				
and/or commercial development of natural	NO				
resources on lands and territories claimed by					
indigenous peoples?					
4.5 Could the project lead to impacts on the	No				
	NO				
Cultural Heritage of indigenous peoples, including through the commercialization or use of their					
traditional knowledge and practices? Labour and Working Conditions				Yes/no/manual	Tool Link
Labour and Working Conditions				trigger.	1001 LINK
The pursuit of inclusive and sustainable economic	growth, full and	productive employ	ment and decent	work for all	ILO Statistics and Databases:
requires the protection of project workers' fundame					https://www.ilo.org/global/statistics-and-databases/lang
working conditions. Two tools are suggested to app				,	en/index.htm US Department of Labor Findings on the
mentaling contained in the tools are ouggested to app		y .a.z z az.tz.			Worst Forms of Child Labour :
ILO Statistics and Databases: ILO's central portal	to labour stati	stics, overview of I	abour laws, standa	rds and policies.	https://www.dol.gov/agencies/ilab/resources/reports/child-
and country profiles.		,	,	'	labor/findings
US Department of Labor Findings on the Worst	Forms of Chil	d Labour : provide	es country specific	findings on worst	,
forms of child and forced labour, together with prev					
and available social programs to address child labor		, , , , , , , , , , , , , , , , , , , ,	- g,		
5.1 Could the project operate in sectors or value	Yes	rare	moderate	Yes	
chains that are characterized by working				100	
conditions that do not meet national labour laws					
or international commitments? (Note: this may					
include discriminatory practices, high gender					
inequality and the lack of equal opportunities,					
denial of freedom of association and collective					
bargaining, labour migrants)					
5.2 Could the project use or operate in a value	No				
chain where there have been reports of forced	110				
labour? (Note: Risks of forced labour may be					
increased for projects located in remote places or					
where the status of migrant workers is uncertain)					
5.3 Could the project involve children (a) below	No				
the nationally-defined minimum employment age	NO				
(usually 15 years old) or (b) above the nationally-					
defined minimum employment age but below the					
age of 18 in supported activities or in value					
chains?	NI-				
5.4 Could the project: (a) operate in a sector, area	No				
or value chain where producers and other					
agricultural workers are typically exposed to					
significant occupational and safety risks, and/or					
(b) promote or use technologies or practices that					

Environmental and Social Safeguards	and Social Safeguards No, Yes If Yes or Unsure If Relevan		If Relevant for	Tool Link	
	Unsure	Likelihood	Consequence	Procurement	
				(include action)	
pose occupational safety and health (OSH) risks					
for farmers, other rural workers or rural					
populations in general? (Note: OSH risks in					
agriculture might include: dangerous machinery					
and tools; hazardous chemicals; toxic or					
allergenic agents; carcinogenic substances or					
agents; parasitic diseases; transmissible animal					
diseases; confined spaces; ergonomic hazards;					
extreme temperatures; and contact with					
dangerous and poisonous animals, reptiles and					
insects. Psychosocial hazards might include					
violence and harassment.)					
Community Health, Safety and Security				Yes/no/manual	Tool Link
				trigger.	
Community Health and Safety are crucial eleme	nts for consid	deration, particula	rly in low- to mid	dle-income	INFORM: https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-
countries where there is a lack of knowledge at					Risk/Results-and-
health risks and impacts that they are confronte			,		data/moduleId/1782/id/419/controller/Admin/action/Results
,	•	•			UN Women Global database on violence against women:
INFORM , the Hazard and exposure tab provides a	detailed set of	indexes for the mo	ost common health	risks affecting	https://evaw-global-database.unwomen.org/en
rural communities at national level.				J	
UN Women Global database on violence agains	t women: pro	vides easy access	to comprehensive	and up-to-date	
information on measures undertaken by United Na					
6.1 Could the project be at risk from water-borne	Yes	rare	moderate	No	
or other vector-borne diseases (e.g. temporary					
breeding habitats), and/or communicable and					
non-communicable diseases?					
6.2 Could the project lead to unintended negative	No				
impacts on nutrition?					
6.3 Is there a possibility of harm or losses due to	No				
failure of structural elements of the project (e.g.					
collapse of buildings or infrastructure)?					
6.4 Could the project involve or lead to the	No				
construction or rehabilitation of dams?					
6.5 Could the project involve or lead to transport,	No				
storage, and use and/or disposal of hazardous or	110				
dangerous materials (e.g. explosives, fuel and					
other chemicals during construction and					
operation)?					
6.6 Could the project lead to adverse impacts on	No				
ecosystems and ecosystem services relevant to					
communities' health (e.g. food, surface water					
purification, natural buffers from flooding)?					
6.7 Could the project lead to the potential for	No				
gender-based violence, including sexual					
harassment, exploitation and abuse, as a result of					

Environmental and Social Safeguards	No, Yes	If Yes or Unsur	Yes or Unsure		Tool Link	
•	Unsure	Likelihood	Consequence	Procurement (include action)		
labour influx, land redistribution, or other actions that alter community dynamics?						
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	No					
6.9 Could the project lead to an influx of project workers?	No					
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No					
Resettlement				Yes/no/manual trigger.	Tool Link	
Resettlement is not only as the physical relocat displacement causing restrictions on, or loss of important sites. Questions of this standard are sources	f access to, p very specific	eople's means o	f livelihoods and o	ulturally		
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No					
7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No					
7.3 Could the project present a risk of forced evictions?	No					
7.4 Could the project lead to an influx of project workers?	No					
Financial intermediaries and direct investments				Yes/no/manual trigger.	Tool Link	
Investments into financial intermediaries and prostainable financial markets and provide finan micro, small and medium-sized enterprise sector partner and thus do not require external	cial products or. These que	and services to	farming business	es and to the rural		
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No					
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No					

Environmental and Social Safeguards	No, Yes	If Yes or Unsure		If Relevant for	Tool Link
	Unsure	Likelihood	Consequence	Procurement (include action)	
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No				
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No				
8.5 Is there evidence that the institution does not comply with the local legal framework?	No				
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No				
8.7 Does the organization provide auxiliary or capacity building support services.	No				
Moderate					

Annex 2. Climate Risk Screening Check List

Question	Yes	No	TBD	Data Source	
Step 1: Hazard identification					
Step 1 helps Project Design Team (PDT) to identify the key natural hazards, based on past and current climate observations and trends, as well as future projections, for a					
given location. These hazards should be considered in project design and implementation to promote disaster and climate resilience. This includes weather-related					
hazards that are likely to affect agricultural systems (including crops, livestock, fisheries, livestock forests, value chains and agricultural livelihoods). The identification of					
the hazard risks are based on the Thinkhazard tool, which ranks th					
provides guidance on how to reduce the possible impacts of these					
Knowledge Portal (CCKP). Follow the guiding questions below to					
compared to the current baseline. The potential impacts of the project		(in terms	s of greenhouse	gas emissions) are also addressed in this section	
Projected change from baseline (future hazards in the areas of inte	ervention)				
What are the expected hazards in the project intervention area?					
River flood	Yes			Thinkhazard tool	
Costal Flood	Yes			Thinkhazard tool	
Urban Flood	Yes			Thinkhazard tool	
Landslide	Yes			Thinkhazard tool	
Cyclone				Thinkhazard tool	
Water Scarcity (agricultural droughts and/or dry spells)	Yes			Thinkhazard tool	
Extreme Heat	Yes			Thinkhazard tool	
Wildfires	Yes			Thinkhazard tool	
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity					
Change in temperature (increase or decrease)	Yes			In the WB CCKP, select the climate projection tab	
				with the monthly temperature variable on the 2040-	
				2059 option at the RCP 8.5 Scenario – If the average	
				change is higher than 1 degree compared to the	
				baseline mean temperature - select YES.	

Question	Yes	No	TBD	Data Source	
Change in rainfall (increase or decrease)		No		In the WB CCKP, select the climate projection tab	
,				with the monthly precipitation variable on the 2040-	
				2059 option at the RCP 8.5 Scenario – If the average	
				change is judged significant - select YES.	
Climate variability (larger or smaller)	Yes			In the WB CCKP, undertake a qualitative	
				assessment of the projected precipitation/mean	
				temperature graph, and the projected	
				precipitation/mean temperature anomaly heat plot in	
				the climate projections tab, using the 2040-2059	
				option at the RCP 8.5 scenario, and undertake a	
				qualitative assessment.	
Intensity and frequency of extreme events (larger or smaller)	Yes			In the WB CCKP, undertake a qualitative	
				assessment using the variables for extreme events	
				for temperature and precipitation (number of very hot	
				days, days with precipitation > 20mm, etc.) in the	
				climate projections tab applying the 2040-2059 time	
	<u> </u>		:	period at the RCP 8.5 scenario.	
Is the project expected to have an impact on climate change (i.e. contribute	to greenhouse		nissions)		
Is the project expected to be a significant emitter of greenhouse gases?		No		Soloot 'you' if the project plane to invest in land use	
				Select 'yes' if the project plans to invest in land use change leading to decreased forest coverage;	
				increasing livestock (especially cattle), increasing the	
				use of agrochemicals. Select 'no' if none of these	
				apply, or if other investments within the project have	
				been confirmed to offset the emissions from such	
				activities. Select 'TBD' if further analysis is required	
Hazard risk = (total nº YES + TBD responses / total nº YES + NO + TBD	responses) * 1	0		addition colour 125 in tartifer arranyole to required	
Step 2: Exposure Assessment					
Step 2 helps the PDT identify the exposure of the project area to the hazard	s identified for t	his loc	cation in Step 1. Th	his is based on information related to presence of	
people, agricultural livelihoods, species or ecosystems, environmental functi	ions, services, a	and re	sources, infrastruc	cture; or economic, social, or cultural assets in project	
locations and settings that could be adversely affected by project activities.					
Is the project located in exposed areas to weather-related natural hazards?					
Low-lying areas (valleys, coastal zones, and small islands)		No		Project design mission assessment	
Very warm areas (subtropical)		No		Project design mission assessment	
Tropical areas (rainforests)		No		Project design mission assessment	
Arid and semi-arid areas (deserts)	Yes			Project design mission assessment	
Mountains zones and permafrost areas (tundra)		No		Project design mission assessment	
River banks		No		Project design mission assessment	
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?					
Is crop production frequently affected by rainfall variability, prolonged	Yes			PDTs should engage in stakeholder interviews or	
droughts, changes in temperature or pests and diseases?				look at publicly available sources of information such	

Question	Yes	No	TBD	Data Source
Is livestock productivity frequently affected by rainfall variability, prolonged	Yes			as research by national meteorological authorities,
droughts, changes in temperature or diseases?				national climate strategies and frameworks (e.g.
Are fisheries frequently affected by ocean acidification, water salinity and		No		NDCs, NAPs, National Communications to the
changes in sea surface temperature due to ocean-atmospheric oscillations				UNFCCC), national agriculture and climate change
or climate change?				action plans
Is forest productivity frequently affected by wildfires, diseases, rainfall		No		
variability, prolonged droughts, or changes in temperature?				
, , , , , , , , , , , , , , , , , , ,	Yes			
	Yes			
processing and marketing) exposed to climate related hazards?				
Is any rural infrastructure likely to be affected by flooding, landslides,	Yes			
changes in temperatures, and extreme winds?				

Exposure risk = (total nº YES + TBD responses / total nº YES + NO + TBD responses) * 10

Step 3: Sensitivity Assessment

Step 3 helps the PDT identify the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Individuals and communities are differentially vulnerable depending on factors including wealth, education, gender, age, nutrition, disability and health. Follow the guiding questions below to identify the vulnerability of your project area or system to weather-related hazards and exposure. Reflect on the current social, economic and political factors in your project area.

Examples of factors to consider include access to technology, prices (particularly food and energy), financial resources, conflict, political instability, legal enforcement, population growth, urbanization, pollution, land ownership issues, land and soil quality, nutrition, education, and life expectancy.

To guide your data gathering, The INFORM Risk Index supports the development of proactive crisis management frameworks. It supports resource allocation for disaster management and helps users plan coordinated actions focused on anticipating, mitigating, and preparing for humanitarian emergencies. Additional information can be found on the WB CCKP, which provides a TAB on climate vulnerability with key snapshots of vulnerability trends of national populations. Important information can also be found in countries' National Communications to the UNFCCC (chapter on vulnerability of population) and other national climate change and DRR frameworks or scientific papers.

papers.					
What are key sensitivities for the populations in the project's areas of intervention?					
Is conflict exacerbating the population's sensitivity to weather related hazards?	Yes		Use the INFORM, Hazard& Exposure tab - Current Highly Violent Conflict Intensity Score (Column - DT). For scores of 5 and above, include a 'Yes' response. For scores of 1-4, include a 'No' response		
Is population displacement being exacerbated by climate change impacts?	Yes		Project design mission assessment		
Are diseases (e.g. COVID-19, malaria, cholera) increasing the population's vulnerability and affecting their capacity to address potential weather-related hazards?		No	Use the INFORM, Vulnerability tab - Current Highly Health Conditions Score (Column - AB) Scores above 5 would trigger a YES response.		
Is the income of the target population predominately coming from agriculture?	Yes		Use the INFORM, Hazard& Exposure tab Droughts probability and historical impact (Column - AU) Scores above 5 would trigger a YES response.		
Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?		No	Use the INFORM, Vulnerability tab – Inequality index (Column - H). Scores above 5 would trigger a YES		

Question	Yes	No	TBD	Data Source
				response - Also assess presence of indigenous
				group in the country/project intervention area through
				the International Working Group for Indigenous
				Affairs website
Is the Human Development Index (HDI) equal to or below 0.6?	Yes			Use the INFORM, Vulnerability tab - Human
				development (Column - C) Scores above 5 would
				trigger a YES response.
Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?			TBD (No data)	Use the INFORM, Vulnerability tab -
				Multidimensional Poverty Index (Column - D) Scores
				above 5 would trigger a YES response.
Sensitivity risk = (total nº YES + TBD responses / total nº YES + NO + TBD responses) * 10				

Sensitivity risk = (total nº YES + TBD responses / total nº YES + NO + TBD responses) * 10

Step 4: Adaptive capacity and climate resilience

Step 4 assesses the degree to which a system or a community is able to adapt to the adverse effects of climate change, including climate variability and extremes. While responses in Steps 1-3 above increased the project's expected overall climate risk rating, Step 4 on adaptive capacity may decrease the expected risk level. Adaptive capacity is the ability of a community or individual exposed to climate change to adjust, absorb, avoid, and/or diffuse the negative consequences of climate change in their production and livelihood context. Their ability to do so is linked to their context, including their level of general development as well as assets, information (including climate information tailored to agriculture), resources and opportunities, alternatives and the diversity of sources of income available to them, as well as the degree to which these are subject to the impacts of climate change

What are key adaptive capacities in the areas of project intervention?

	ı				
Is the country well ranked in the Disaster risk reduction progress score?			TBD (No data)	Use the INFORM, Lack of coping capacity tab –	
				DRR. Scores Below 5 would trigger a YES response.	
Are climate and weather information services (real-time weather data,		No		Project design mission assessment	
seasonal forecasts etc.) effectively being delivered (through radio, TV,				, ,	
SMS, extension services etc.) to farmers, rural dwellers, and end users?					
Does the project country have an early action plan (preparedness and		No		Project design mission assessment	
emergency response) to mitigate the impacts of weather-related hazards					
once the shock occurs?					
Does the government or other institutions support the target		No		Project design mission assessment	
population/communities with the necessary social and economic resources					
to prepare for or respond to climate-related events?					
Is the target community carrying out (using their own means) agricultural		No		Project design mission assessment	
adaptation?					
Does the target population have the economic means or support to adjust		No		Project design mission assessment	
or adapt their activities in response to weather related shocks?				,	
Do policies/mechanisms exist that make financial credit, loans, and		No		Project design mission assessment	
agricultural insurance available?				, ,	
Are rural infrastructures effectively delivering services to farmers and rural	Yes			Existing Roads, Irrigation schemes and water	
dwellers?				management structures are effectively working in the	
				project intervention area	
Adaptive capacity = (total nº YES / total nº YES + NO + TBD responses) * 10					

Question	Yes	No	TBD	Data Source				
Step 5 - Climate risk classification:								
Based on the responses in the screening checklist, the screening tool will identifies potential climate related risks and hazards in the project area and obtains a climate risk								
classification as 'No/Low', 'Moderate', 'Substantial' or 'High' risk.								
Based on the formula below, calculate the climate risk by assigning the number of "Yes" responses of each step to Hazards, Exposure, Sensitivity and Adaptive Capacity								
and use the guidance below to determine the overall climate risk on the proj	ect.							
Climate Risk=(((Hazards+Exposure+Sensitivity)-Adaptive Capacity))/3								
Risk between 0 and 2	Low/No	No a	ction required, but	recommended to monitor risk throughout the project				
	Risk	deve	lopment.					
Risk between 2 and 4.5	Moderate	Addit	tional screening, s	tudies and consultations are recommended literature				
	Risk	review of climate assessments is required to ensure that the risks identified to ensure the risks identified the risks identified to ensure the risks identified to ensure the risks identified to ensure the risk						
		are fully understood and addressed in the project design. Follow guidance of						
		more detailed risk assessment						
Risk between 4.5 and 7	Substantial	Targeted Adaptation Assessment is required in order to adequately identify						
	Risk	measures to reduce risks. Measures to manage or reduce climate risks should be identified and applied.						
Risk between 7 and 10	High Risk	Deta	iled Vulnerability I	mpact and Adaptation Assessments are mandatory in				
		order to adequately identify measures to reduce risks. Measures to manage						
	or reduce climate risks should be identified and applied.							
Hazard = 7.69								
Exposure = 4.62								
Sensitivity = 7.14								
Adaptive Capacity = 1.25								
Climate Risk = 6.06								
SUBSTANTIAL with a score of 6.06								