Ethiopia's "Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities"

Environmental and Social Management Plan

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Ethiopia's "Responding to the Increasing Threat of Drought: Building the Resilience of the Most Vulnerable Communities through Climate-smart and Landscape-based investments"

1. Introduction

This Environmental and Social Management Plan (ESMP) has been prepared in support of theproject proposal on "*Responding to the Increasing Threat of Drought: Building the Resilience of the Most Vulnerable Communities through Climate-smart and Landscape-based investments*" by the Government of Ethiopiato the Green Climate Fund.The project has been screened against the GCF's and IFC/WB's Social and Environmental Standards Procedureand deemed a Medium Risk (International Finance Corporation/World BankCategory B) project. This categorization is in due recognition thatthe project will be conducted in food insecure, drought affects, and marginal lands and not in sensitive ecosystems (i.e. in wetlands, forests, or others). Moreover, it will have minimal adverse social impacts and impact on cultural heritage. Furthermore, the anticipated impacts will be restricted to the project site and will not affect a broader area beyond the immediate project implementation sites. Finally, all impacts identified will be addressed through implementation of mitigation measures and there will be minimal residual impact after the implementation of the proposed mitigation measures.

1.1. Background on the project

The aim of the project is to build the resilience of vulnerable communities to drought that have been exacerbated by climate change. Fundamentally, this requires that the predominately rural communities achieve diversification from their existing reliance on agriculture, in climate smart ways and adapt to the future impacts of climate change.

The proposed project responds to the underlying causes of low resilience within Ethiopia's rural communities by using a landscape approach to systematically build resilience to drought and variability in rainfall though adapting this particularly circumstances of each targeted community (or landscape).

To ensure current knowledge and future learnings are gained across the diverse sectors and communities of Ethiopia, the project will work in at least one Woreda (District) in each region - a total of 22 Woredas will be targeted across the ten regions (Figure 1), thereby benefitting a population of about 2.5 million people (Table 1). The project design assumes that implementation will be supported in an average of eight Kebeles (Sub-Woredas) per Woreda. Woredas have been selected based on their vulnerability and susceptibility to drought or increasing variability of rainfall, all as a result of changes in climatic patterns, as well as satisfy core feasibility criteria; specifically adequate availability of water and physical access to markets, as well as the commitment of communities and other stakeholders to participate in the proposed initiatives.

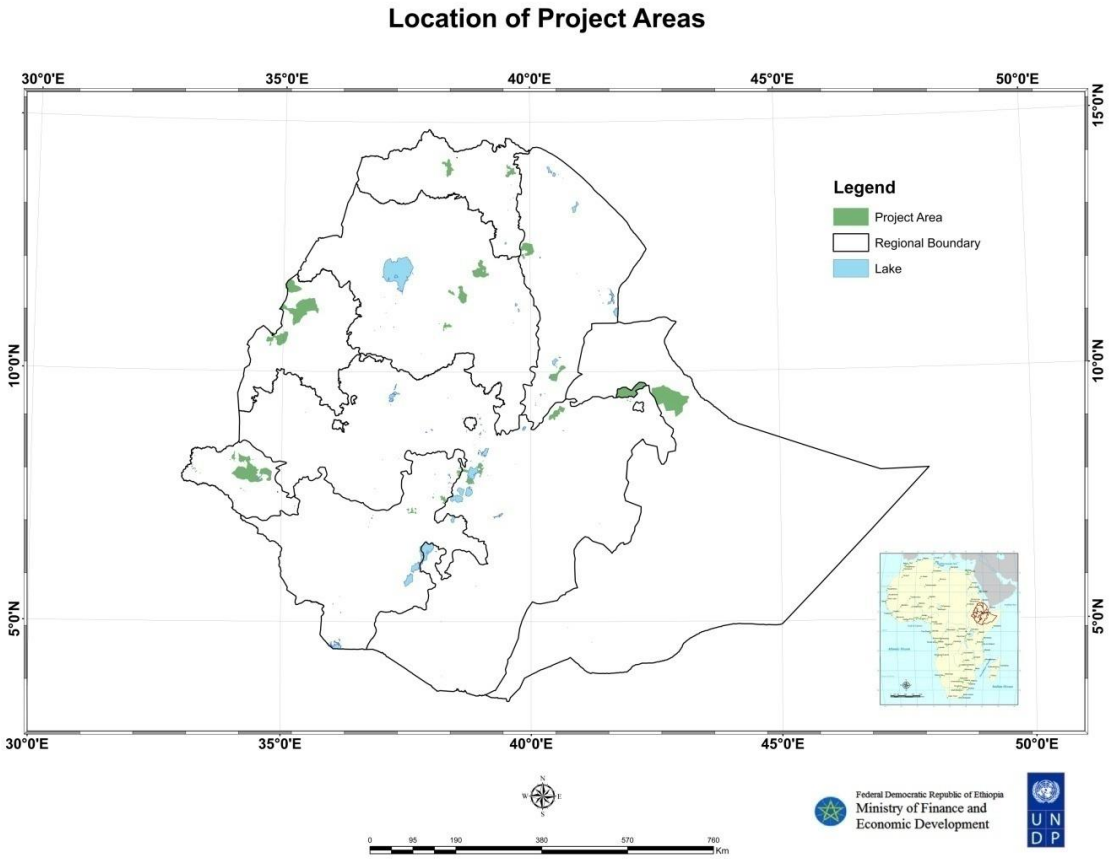

Figure 1: Location of project areas

1.2. Objectives

The main objective of the project is to increase resilience of the targeted rural community to the adverse impacts of climate change by introducing new approaches to water supply and management capable of increasing the productive capacity of the community and the carrying capacity of the water ecosystems.

1.3. Expected Results

The project is will benefit 330,000 people directly (30% Female Headed Households) and 1,300,000 people indirectly. Direct beneficiaries include 330,000 people with year –round access to reliable and safe water supply, despite climate shocks and stresses and over 21,000 food-secure households. Moreover, 7,850 ha. degraded land will be managed and 5,000 ha of land shall be covered by trees.. Improvement in women participation in decision making and in productive activities and increased agricultural productivity are also expected.

1.4. Components of the Project

The project has three main components and associated sub-components, with each sub-component comprising several activities:

1. **Component 1: Improved access to water to build a resilient livelihood:** This component is designed in alignment with four strategic priorities outlined in the CRGE Strategy with respect to the water sector. In line with CRGE Strategic Priority 4.1 Accelerate universal access to WASH; it will enhance potable water supply for vulnerable households from groundwater sources that are resilient to current climate shocks and future climate change trends. Similarly in line with Strategic Priorities 3.1 and 2.2, i.e. accelerate irrigation plans and accelerate non-grid energy access, it will respectively

develop small-scale irrigation and will utilize solar powered pumpsto provide water for potable and irrigation use.

2. **Component 2 - Management of Natural Resources for Sustained Water Availability:** Under this component, the project will undertake specific natural resource management activities to enhance surface and groundwater sources to ensure sustained water availability. In this context, reduced deforestation and forest degradation, together with rehabilitation of communal lands through integrated natural resource management and promotion of bamboo production, will result in a range of environmental benefits including, conservation and rehabilitation of biodiversity, reduced soil erosion and soil degradation, and carbon sequestration. The supply of improved technologies and promotion of best-practices through farmer training and on-farm demonstration will help reduce soil erosion and degradation, improve soil fertility through increased organic content and increase sequestration of carbon in the soil.

3. **Component 3 - Enabling Environment:** The CRGE Water Sector Strategy has been unsatisfactorily implemented at the local level. Local development plans (Woreda level plans) are developed annually in Ethiopia but do not properly mainstream the CRGE strategy. Hence, this component focuses on: (i) strengthening the Institutional framework, (ii) implementing local management instruments, (iii) strengthening participatory consultation at the local level.

2. Governing Legislation and Standards

The legislative and policy basis for the provision of environmental protection, climate change, water resource management, and health, hygiene and occupational safety in Ethiopia is controlled through the following, which are discussed further below:

1. **The Constitution**

2. **Environment and climate change related policies, strategies and proclamations**, which highlight the environmental management requirements in the country, including:
   - The Environment Policy;
   - Proclamation 299/2002, Environmental Impact Assessment (EIA);
   - Proclamation 300/2002, Environmental Pollution Control;
   - Proclamation 513/2007, Solid Waste Management;
   - Proclamation 159/2008, Prevention of Industrial Pollution – Council of Ministers Regulation;
   - EIA Guideline, July 2000;
   - EIA Procedural Guideline, November 2003;
   - Guideline for Environmental Management Plan (draft), May 2004;
   - The Climate ResilientGreen Growth (CRGE) Strategy.
3. **Water resource management related policies, strategies and proclamations**, which highlight the water resource management and the associated requirements related to integrated water resource management, including:
   - Water Resource Management Policy,1999
   - Water Resource Management Strategy, 2001
   - Proclamation No. 197/2000, Ethiopian Water Resources Management Proclamation
   - Proclamation No. 115/2005, Ethiopian Water Resources Management – Council of Ministers Regulation
4. **Health and sanitation related policies, strategies and proclamations,** which highlight requirements that have relevance to hygiene and WASH
   - Proclamation 661/2009, Food, Medicine and Health Care Administration and Control
   - Proclamation 200/2000, Public Health Proclamation

- National Hygiene and “On-Site” Sanitation Protocol
- One WASH National Programme

The project will fullycomply with Ethiopia’s national law.

2.1. The Constitution

The constitution adopted by Ethiopia in 1995 provides the guiding principles for environmental protection and management in Ethiopia. The concept of sustainable development and environmental rights are enshrined in Article 43, 44, 90 and 92 of the Constitution of GOE.

In Article 43: The Right to Development identifies peoples’ right to:

- Improved living standards and to sustainable development; and
- Participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community.

Similarly, in Article 44: Environmental Rights, all persons:

- Have the right to a clean and healthy environment; and
- Who have been displaced or whose livelihoods have been adversely affected as a result of state programs, have the right to commensurate monetary or alternative means of compensation, including relocation with adequate state assistance.

Furthermore, in Article 90: Social Objectives highlights that - to the extent the country’s resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security.

Moreover, in Article 92: Environmental objectives are identified as:

- Government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment
- The design and implementation of programs shall not damage or destroy the environment
- People have the right to full consultation and to the expression of views in the planning and implementation of environmental policies and projects that affect them directly
- Government and citizens shall have the duty to protect the environment.

2.2.Environment and climate change related policy, strategies and proclamations

Environment Policy of Ethiopia

The *Environmental Policy of Ethiopia*(EPE) was approved on April 2, 1997 by the Council of Ministers and consists of ten sectoral and ten cross-sectoral policies. The EPE has embraced the concept of sustainable development. As its goal, the EPE states

> “*to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs*.”

Some of the policy provisions relevant to the project at hand include the following:

a. To promote in drought-prone and low rainfall areas water conservation which is as important as physical soil conservation for more secure and increased biomass production, including crop production;

b. To develop forestry on the farm, around the homestead and on eroding and/orerodedhillsides in order to increase the stock of trees for fuel wood, construction material, implements and crafts, for forage and for other tree products;

c. To undertake full environmental, social and economic impact assessments of all existing irrigation schemes in the rangelands and wherever needed establish programmes of correcting their negative environmental, social and economic impacts.

d. To recognize that public consultation is an integral part of EIA and ensure that EIA procedures make provision for both an independent review and public comment before consideration by decision makers;

e. To ensure that forestry development strategies integrate the development, management and conservation of forest resources with those of land and water resources, energy resources, ecosystems and genetic resources, as well as with crop and livestock production; and

f. To ensure that all phases of environmental and resource development and management, from project conception to planning and implementation to monitoring and evaluation are undertaken based on the decisions of the resource users and managers.

The Environment Protection Authority (EPA), currently the Ministry of Environment, Forest and Climate Change (MEFCC), had issued several guidelines including the: (i) "EIA Guideline Document of the EPA" (2000), (ii) Procedural EIA Guideline of EPA (2003),and (iii) 2004 EPA's EIA Guidelines for sectors including: (a) road and railway; (b) fisheries projects, (c) forestry, (d) hydropower production, transportation and distribution, (e) irrigation projects, (f) livestock and rangelands, (g) mineral and petroleum operation projects, (h) water supply, and (i) Sustainable Industrial Zone/Estate Development.

Proclamation 299/2002, Environmental Impact Assessment

The EIA Proclamation makes EIA a mandatory requirement for the implementation of major development projects, programs and plans. The Proclamation is a tool for harmonizing and integrating environmental, economic, cultural, and social considerations into decision-making processes in a manner that promotes sustainable development. The why and how to prepare, methodologies, and to whom the report is submitted are described in this law. The law clearly defines:

a. Why there is a need to prepare EIAs;

b. What procedure is to be followed by the MSE in order to implement EIA of the project;

c. The depth of environmental impact studies;

d. Which projects require full EIA reports;

e. Which projects need partial or no EIA report; and

f. To whom the report has to be submitted.

Directive No.1/2008 A Directive Issued to Determine Projects Subject to the Environmental Impact Assessment Proclamation No.299/2002 lists the projects that require EIAs. None of the activities proposed under the proposed project are listed, therefore EIAs are not expected to be required. Should this change or the need for an EIA be identified, then a full assessmentwould be undertaken as part of the implementation

Proclamation 300/2002, Environmental Pollution Control

Complementary to the EIA legislation, which requires developmental activities to give considerations to environmental impacts before their establishment, the Pollution Control Proclamation requires ongoing activities to implement measures that would reduce their degree of pollution to a set limit or quality standard. Thus, one of the dictates of the legislation is to ensure through inspection the compliance of ongoing activities with the standards and regulations of the country i.e. environmental audit.

Proclamation 513/2007, Solid Waste Management

Proclamation 513/2007 aims to promote community participation in order to prevent adverse effects and enhance benefits resulting from solid waste. It provides for preparation of solid waste management action plans by urban local governments.

Proclamation 159/2008, Prevention of Industrial Pollution - Council of Ministers Regulation

As a follow up to Proclamation 300/2002, a regulation to prevent industrial pollution was developed by the Federal Environmental Protection Authority to ensure the compatibility of industrial development with environmental conservation. This regulation (Proclamation no. 159/2008) also includes comprehensive industrial pollution standards for a range of industrial and mining activities.

EIA Guideline, July 2000

The EIA Guideline Document provides essential information covering:

a. Environmental Assessment and Management in Ethiopia;

b. Environmental Impact Assessment Process;

c. Standards and Guidelines; and

d. Issues for sectoral environmental impact assessment in Ethiopia covering: agriculture, industry, transport, mining, dams and reservoirs, tanneries, textiles, hydropower generation, irrigation projects and resettlement projects.

The guideline also contains annexes that:

a. identify activities requiring a full EIA, partial measure or no action;

b. contain sample forms for application; and

c. provide standards and guidelines for water and air.

EIA Procedural Guideline, November 2003

The guideline outlines the screening, review and approval process for development projects in Ethiopia and defines the criteria for undertaking an EIA.

Relevant to the project are the activities listed in Annex II, Schedules 1 and 2, which require either full or preliminary EIS.However, Directive No.1/2008 (refer above)modifies this list and consequently none of the proposed activities requires an EIA.

Guideline for Environmental Management Plan (draft), May 2004

The Guideline outlines the necessary measures for preparation of an Environmental Management Plan (EMP) for proposed developments in Ethiopia and the institutional arrangements for implementation of EMPs. This ESMP complies with the requirements of the Guideline.

The CRGE Strategy, 2011

The CRGE strategy focuses on four pillars that will support Ethiopia's developing green economy:

a. Adoption of agricultural and land use efficiency measures;

b. Increased GHG sequestration in forestry, i.e., protecting and re-establishing forests for their economic and ecosystem services including as carbon stocks;

c. Deployment of renewable and clean power generation; and

d. Use of appropriate advanced technologies in industry, transport, and buildings.

In general, four initiatives for fast-track implementation have been selected under the CRGE: (i) exploiting Ethiopia's hydropower potential; (ii) large-scale promotion of advanced rural cooking technologies; (iii) efficiency improvements to the livestock value chain; and (iv) reducing Emissions from Deforestation and forest Degradation (REDD).

2.3. Water Resource Management related policies, strategies and proclamations

Ethiopian Water Sector Policy, 1999

The water sector policy aims enhance the development of the country's water resources to make optimum contribution to an accelerated socio-economic growth. The water resources management policy is based on the constitution of the FDRE Government Macro Economic and Social policies and development strategies as well as objectives accepted by the Federal Democratic Republic of Ethiopia and the principles of water resources development objectives that would enhance the socio-economic development of the peoples of Ethiopia.

Ethiopian Water Sector Strategy, 2001

The principal objective of the water resources strategy is to translate the national water resources management policy into action. More specifically, this strategy sets the road map as how to make meaningful contributions towards:

- Improving the living standard and general socio-economic well being of the Ethiopian people.
- Realising food self-sufficiency and food security in the country.
- Extending water supply and sanitation coverage to large segments of the society, thus achieving improved environmental health conditions.
- Generating additional hydro-power.
- Enhancing the contribution of water resources in attaining national development priorities.
- Promoting the principles of integrated water resources management.

By doing so, the strategy will be able to make meaningful contributions towards achieving a broader national development objectives of poverty alleviation and sustainable human resources development. Pursuance of these objectives makes the water strategy compatible with the national economic development strategy.More specifically, the objective of the water supply and sanitation sub-sector strategy is to develop viable and implementable guidelines that promote the sustainable, efficient, effective, reliable, affordable and user-acceptable development of water supply and sanitation services, including livestock watering, in Ethiopia.

- ***Ethiopian Water Resources Management Regulation (No. 115/2005)***

Ethiopian Water Resources Management Regulation Part two, Article 3, Water Resources utilization provides a list of information required for an application to be submitted to the Supervising Body for a water use permit, pursuant to Article 13 of the Proclamation (Proclamation No. 197/2000) and Article 4 states the duties of the supervising body with regard to provision of license for water works.

2.4. Health and sanitation related policies, strategies and proclamations

- ***Proclamation 661/2009, Food, Medicine and Health Care Administration and Control:***

The proclamation provides provisions towards:

- Ensuring that handling and disposal of trans-regional solid and liquid wastes are not harmful to public health
- Ensuring that the quality of trans-regional water supply for the public is up to the standard
- Ensuring the availability of necessary hygienic requirements in controllable health related institutions under the federal government

- ***Proclamation 200/2000, Public Health Proclamation:***

This proclamation prohibits:

- the discharge of untreated liquid waste generated from septic tanks, seepage pits and industries into water bodies, or water convergences
- the disposal of solid or liquid or any other waste in a way which contaminates the environment or affects public health.*)*

- ***National Hygiene and "On-Site" Sanitation Protocol:***

The National Sanitation Protocol (2006), which is designed to follow the national strategy for hygiene and sanitation improvement with focus on universal access in rural or peri-urban areas.

- ***One WASH National Programme***

ONE WASH programme; brings together four ministries- Water Resources, Health, Education, and Finance & Economic Development to modernise the way water and sanitation services are delivered to the people of Ethiopia; improving the health situation, decreasing the drop-out rates of children in schools, and making financing for Water Sanitation and Hygiene (WASH) more effective.

OWNP contributes to achieving the government's social and economic priorities in an equitable and sustainable manner by increasing water supply and sanitation coverage and the adoption of good hygiene practices. It consolidates planning, budgeting and reporting activities of WASH in a broad sector wide approach.

3. Alignment of National Policies and Laws with GCF Safeguard Standards

Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts

Ethiopia's Environmental Policy defines the environmental and social objectives and principles that guide the project to achieve sound environmental and social performance; while the EIA Proclamation (Proclamation no. 299/2002) sets a process for identifying the environmental and social risks and impacts of the project;

The ESMP incorporates as appropriate what is required by the GCF's ESMS that include: (i) policy; (ii) identification of risks and impacts; (iii) management programs; (iv) organizational capacity and competency; (v) emergency preparedness and response; (vi) stakeholder engagement; and (vii) monitoring and review.

Performance Standard 2: Labor and Working Conditions

Ethiopia's Labor Proclamation (Proclamation No. 377/2003) protects the rights of contract employees and contains similar provisions of PS2 of GCF safeguard standard. The proclamation's provisions such as the obligations of employers to respect human dignity of employees, to take measures for occupational health and safety and has clear provisions that stipulate the obligations of the employee and the employer. It is unlawful to discriminate against female workers in matters of remuneration on the grounds of their sex; discriminate between workers on the basis of nationality, sex, religion, political outlook or any other condition. Project implementers need to ensure that these national laws and GCF performance standard are implemented at all project sites. While the PS2 recommends not to employ children under 18 years, the proclamation "prohibits employing persons under 14 years of age." In cases where there are misalignments between the national and international requirements, it is advisable to adopt the more stringent standard.

Performance Standard 3: Resource Efficiency and Pollution Prevention

Ethiopia's Pollution Control Proclamation and Standards (Proclamation no. 300/2002). The proclamation starts out by stating that

> "*some social and economic development endeavors may inflict environmental harm that could make the endeavors counterproductive"* and further states *"it is appropriate to eliminate, or where not*

possible, to mitigate pollution as undesirable consequence of social and economic development activities."

The proclamation has standards and penalties for waste management and disposal and it can beconcluded that the provisions of the proclamation align well with the GCF performance standard.

Performance Standard 4:Community Health, Safety, and Security

The Food, Medicine and Health Care Administration and Control Proclamation (Proclamation No. 661/2009) replaces the earlier Public Health Proclamation (Proclamation No. 200/2000).

Proclamation No. 661/2009 contains important provisions that are relevant to the project and these include:

a. *It is prohibited to give water supply service from springs, wells or through pipes unless its quality is verified by the Health Authority*;

b. *Any employer shall ensure the availability of occupational health services to his employees*;

c. *The use of any machinery or instrument, which generates excessive noise, is prohibited. Any person who uses such machinery or instrument shall install noise reducing apparatus or –instrument*; and

d. *No person shall dispose solid, liquid or any other waste in a manner, which contaminates the environment or affects the health of the society.*

Performance Standard 5:Land Acquisition and Involuntary Resettlement

Ethiopia's Proclamation to provide for the expropriation of land holdings for the public purposes and payment of compensation (Proclamation No. 455/2005),and the Rural Land Administration and Use Proclamation (Proclamation 456/2005) cover provisions contained in GCF PS5.

Proclamation 456/2005 includes provisions that are in line with GCF performance standard 5:

a. *"Holder of rural land who is evicted for purpose of public use shall be given compensation proportional to the development he, has made on the land and the property acquired, or shall be given substitute land thereon;* and

b. *Rural lands that have gullies shall be made to rehabilitate by private and neighbouring holders and, as appropriate, by the local community, using biological and physical works."*

The Expropriation of Land Holdings for Public Purposes and Payment of Compensation Proclamation No.455/2005" states that

"A woreda or an urban administration shall, upon payment in advance of compensation in accordance with this Proclamation, have the power to expropriate rural or urban landholdings for public purpose where it believes that it should be used for a better development project to be carried out by public entities, private investors, cooperative societies or other organs, or where' such expropriation has been decided by the appropriate higher regional or federal government organ for the same purpose."

The law specifies procedures of expropriation, compensation payment, displacement of land holders and grievance and appeal.

No resettlement is proposed as part of this project.

Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Proclamation No. 381/2004, Institute of Biodiversity Conservation and ResearchEstablishment Proclamation delegates the Institute of Biodiversity Conservation. *"to ensure the conservation of the country's biodiversity using ex-situ and in-situ conservation methods".*

Proclamation No. 482/2006 Access to Genetic Resources and Community Knowledge, and Community Rights Proclamation's objective is *"to ensure that the country and its communities obtain fair and equitable*

share from the benefits arising out of the use of genetic resources so as to promote the conservation and sustainable utilization of the country's biodiversity resources;" Subsequent provisions focus on access rights to genetic resources.

Performance Standard 7 on Indigenous Peoples

There is no specificnational legislation on this aspect as the Ethiopian population is indigenous.In the Ethiopian context this may not be relevant, but the provisions are relevant to any rural community in the selected project areas.The provisions of PS 7 will be addressed through the appropriate implementation of this ESMP.

Performance Standard 8 on Cultural Heritage

Ethiopia's Research and Conservation of Cultural Heritage Proclamation (Proclamation No. 209/2000) established the Authority for 'Research and Conservation of Cultural Heritage and is mandated

> *to protect and supervise Cultural Heritage; collect information on Cultural Heritage and define the nature and classify the standards of same; give the necessary education and advice on the content, benefit and preservation of Cultural Heritage.*

The proclamation stipulates

> *"no person may, without a permit issued by the Authority, carry out building or road construction, excavations of any type or any operation that may cause ground disturbance in an area declared reserved."*

The project does not propose to undertake any of the above controlled activities in areas declared as reserved.

4.Environmental and Social Management Plan

4.1. Objectives of the Environmental and Social Management Plan

An ESMP is a management tool used to assist in minimizing the negative impact to the environment and socially of a project; and reach a set of environmental and social objectives. To ensure the environmental and social objectives of the projects are met, this ESMP will be used by the contractor to structure and control the environmental management safeguards that are required to avoid or mitigate adverse effects on the environment.

The environmental and social objectives of the Projectare to:

a. increase the productivity of livelihoods and the populations' capacity to adapt to climate change through various tested interventions in a coordinated manner to effectively address the challenges facing the rural populations of Ethiopia;

b. improve the water supply to populations in the targeted areas and introduce water and soil conservation measures;

c. improve farming practices to increase productivity and resilience including irrigation, improved seed supply, improved animal husbandry practices diversification of crops (agro-forestry);

d. encourage good management practices through planning, commitment and continuous improvement of environmental practices;

e. minimize or prevent the pollution of land, air and water pollution;

f. protect native flora, fauna and important ecosystems;

g. comply with applicable laws, regulations and standards for the protection of the environment;

h. adopt the best practicable means available to prevent or minimize harmful environmental impact;

i. describe monitoring procedures required to identify impacts on the environment; and

j. provide an overview of the obligations of the Ministry of Environment, Forests and Climate Change (MEFCC) and contractors in regard to environmental obligations.

The ESMP will be updated from time to time by the contractor/s in consultation with MEFCC to incorporate changes in the detailed design phase of the projects.

4.2. Assumptions underpinning the development of the ESMP

The following assumptions have been made in the preparation of this Environmental and Social Management Plan:

a. none of the interventions will require the displacement of people;
b. none of the interventions will be conducted in sensitive locations;
c. the building of the water harvesting and erosion control structures will be undertaken during the dry season to reduce erosional impacts;
d. appropriate erosion and sediment control will be undertaken during all stages of the projects; and
e. there will be no release of pollution and/or chemicals as a result of the projects.

4.3. Required Institutional Framework for implementing the Plan

The ESMP will be used for the project by the MEFCC and further enhanced as required for specific sub-components at specific locations.The ESMP identifies potential risks to the environment and social matters from the projects and outlines strategies for managing those risks and minimizing undesirable environmental and social impacts.Further, the ESMP provides a Grievance Redress Mechanism for those potentially impacted.

The MEFCC will be responsible for the supervision of the ESMP.MEFCC and will ensure the ESMP is adequate and followed.The supervising engineer will ensure timely remedial actions are taken by the contractor where necessary.

4.4.General Management Structure and Responsibilities

In Ethiopia, federal line ministries have Delegation of Authority to conduct ESIA (Environmental and Social Impact Assessment) for projects under their jurisdiction, as provided to them by the Environment Protection Authority (EPA), currently Ministry of Environment Forest and Climate Change (MEFCC), which is still valid. A sample DoA provided by the EPA to the Ministry of Water, Irrigation and Electricity is attached (Annex 1). However, since this is a cross-sectoral project that requires engagement of both the water and irrigation, and agriculture and natural resources sector – the Ministry of Environment, Forest and Climate Change will have a prominent role, while both the Ministry of Agriculture and Natural Resources, and Ministry of Water, Irrigation and Energy will play an important role as delegated authorities in their areas of their mandate.

The Figure below provides a schematic diagram of the institutional arrangement for ESMP implementation.

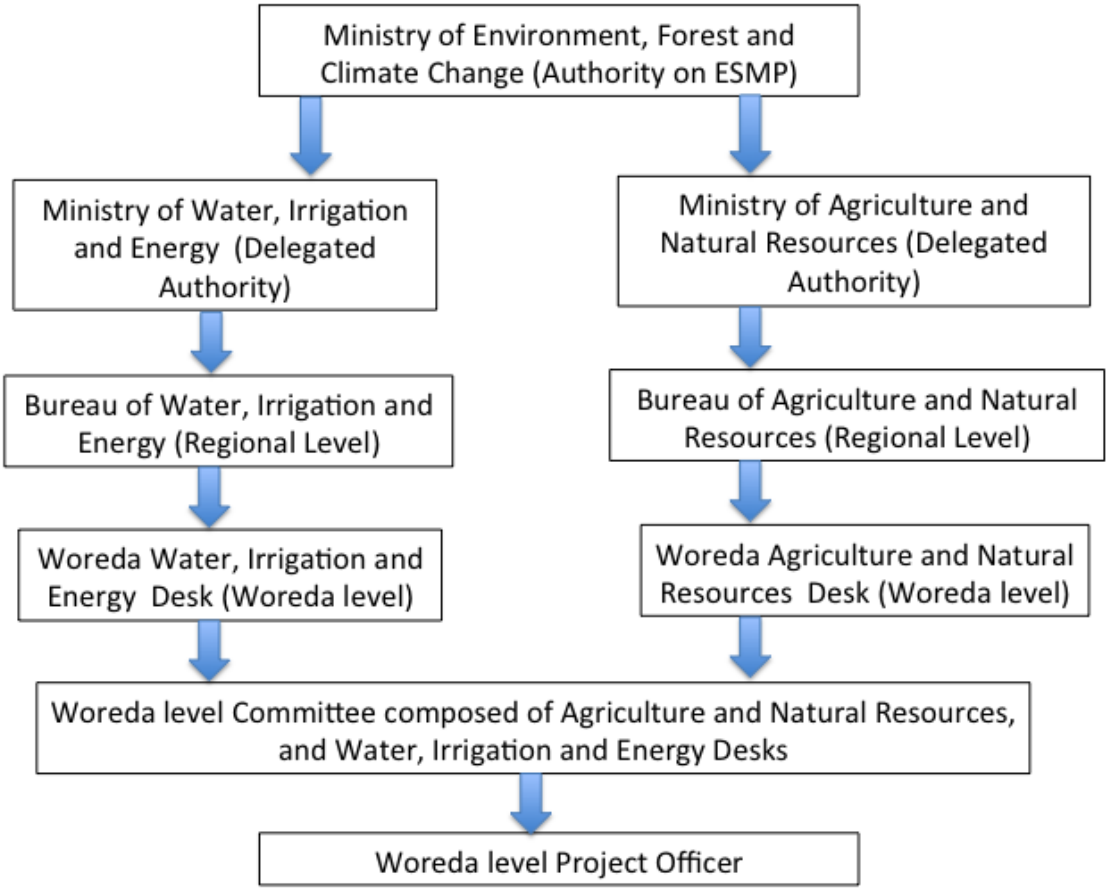

Figure 2. Proposed project implementation structure and environmental coordination roles

Figure 2: Institutional arrangement for ESMP implementation

MEFCCis accountable for the provision of specialist advice on environmental and social issues to the contractors and for environmental and social monitoring and reporting.The MEFCCor its delegate will assess the environmental and social performance of the contractor in charge of construction throughout the project and ensure compliance with the ESMP.During operations the contractors will be accountable for implementation of the ESMP.Contractors working on the projects have accountability for preventing or minimizing environmental and social impacts.

4.5. Administration

The MEFCC will be responsible for the revision or updates of this document during the course of work.It is the responsibility of the person to whom the document is issued to ensure it is updated.

The site supervisor will be responsible for daily environmental inspections of the construction site. The MEFCCor its delegate will cross check these inspections by undertaking monthly audits.

The contractor and/or persons undertaking activities under the project will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

The contractor will be responsible for the day to day compliance of the ESMP.

MEFCC will be the implementing agency and will be responsible for the implementation and compliance with the ESMP via the contractor. The ESMP will be part of any tender documentation.

The Supervising Engineer/Project Manager will supervise the contractor, while the MEFCC will be responsible for environment and social issues.

4.6. Local (Site) Supervisor

The site supervisor is responsible for ensuring compliance with the ESMP. The site supervisor will provide advice on effective environmental management of the project to MEFCC and engineers and all construction site personnel. The site supervisor is to also ensure the environmental awareness of project personnel is maintained through appropriate training. The project implementation team will submit to MEFCC a compliance report on mitigation measures. An independent review of the compliance may be undertaken during construction and post construction where deemed necessary.

4.7. Mechanisms for Implementing the Plan

4.7.1. Environmental Procedures and Site and Activity-Specific Work Plans/Instructions

Environmental procedures provide a written method describing how the management objectives for a particular environmental element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works. Site and activity-specific work plans and instructions are to be issued and will follow the previously successful work undertaking similar projects by the African Development Bank, IUCN and World Bank.

4.7.2. Environmental Incident Reporting

Any incidents, including non-conformances to the procedures of the ESMP are to be recorded using an Incident Record and the details entered into a register. For any incident that causes or has the potential to cause material or serious environmental harm, the site supervisor shall notify MEFCC as soon as possible. The contractor must cease work until remediation has been completed as per the approval of MEFCC.

4.7.3. Daily and Weekly Environmental Inspection Checklists

A daily environmental checklist is to be completed at each work site by the relevant site supervisor and maintained within a register. The completed checklist is forwarded to MEFCC for review and follow-up if any issues are identified. A weekly environmental checklist is to be completed and will include reference to any issues identified in the daily checklists completed by the Site Supervisors.

4.7.4. Corrective Actions

Any non-conformances to the ESMP are to be noted in weekly environmental inspections and logged into the register. Depending on the severity of the non- conformance, the site supervisor may specify a corrective action on the weekly site inspection report. The progress of all corrective actions will be tracked using the register. Any non-conformances and the issue of corrective actions are to be advised to MEFCC.

4.7.5. Review and Auditing

The ESMP and its procedures are to be reviewed at least every two months by MEFCC. The objective of the review is to update the document to reflect knowledge gained during the course of construction operations and to reflect new knowledge and changed community standards (values).Any changes are to be developed and implemented in consultation with MEFCC. When an update is made, all site personnel will be made aware of the revision as soon as possible through a tool box meeting.

4.7.6. Training of Contractors

The main contractor has the responsibility for ensuring systems are in place so that relevant employees, contractors and sub-contractors are aware of the environmental and social requirements for construction, including the ESMP.

All construction personnel will attend an induction that covers health, safety, environment and cultural requirements.

All staff and contractors engaged in any activity with the potential to cause serious environmental harm (e.g. handling of hazardous materials) will receive task specific environmental training.

4.7.7. Public Consultation and Environmental and Social Disclosure

The ESMP includes public consultation as part of their stakeholder engagement plan. The project was developed with MEFCC staff and approved by Government. On-ground consultations have been undertaken in the design of the project and it is expected that consultation with any affected communities will continue. It is anticipated that based on the communities' needs, the projects will be fully accepted.

MEFCC will develop and release Community Flyers on a regular basis to provide interested stakeholders with an update on the construction status of the projects. A publicized telephone number will be maintained throughout the construction of all projects to serve as a point of contact for enquiries, concerns and complaints. .All enquiries, concerns and complaints will be recorded on a register and the appropriate manager will be informed.

Where there is a community issue raised, the following information will be recorded:

a. time, date and nature of enquiry, complaint or concern;

b. type of communication (eg telephone, letter, personal contact);

c. name, contact address and contact number;

d. response and investigation undertaken as a result of the enquiry, complaint or concern; and

e. actions taken and name of the person taking action.

Some enquiries, complaints and concerns may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, complaints and concerns will be investigated and a response given to the complainant in a timely manner. A grievance redress mechanism has been included in the ESMP to address any complaints that may not be able to resolved quickly.

A nominated contractor staff will be responsible for undertaking a review of all enquiries, complaints and concerns and ensuring progress toward resolution of each matter.

4.7.8. Complaints Register and Grievance Redress Mechanism

During the construction and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic issues, decrease in quality or quantity of private/ public surface/ ground water resources during irrigation rehabilitation, damage to home gardens and agricultural lands etc.

Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in ESMP for this project.

The project allows those that have a compliant or that feel aggrieved by the project to be able to communicate their concerns and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this ESMP and to be used as part of the project will provide an accessible, rapid fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.

While recognizing that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this ESMP encourages mutually acceptable resolution of issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this ESMP has been designed to:

Eligibility criteria for the Grievance Redress Mechanism include:

a. Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;

b. clearly specified kind of impact that has occurred or has the potential to occur; and explanation of how the project caused or may cause such impact; and

c. individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.

Local communities and other interested stakeholders may raise a grievance/complaint at all times to the Kebele Administration, Woreda Administration, and Regional State Administration. Affected local communities should be informed about the ESMP provisions, including its grievance mechanism. Contact information of the Kebele, Woreda and Regional State designated environmental officer should be made publicly available.

4.7.9. Complaints Register

A complaints register will be established to record any concerns raised by the community during construction. Any complaint will be advised to MEFCC within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to MEFCC for commentary and/or advice along with the Ethiopian Institution of the Ombudsman (EIO).

A summary list of complaints received and their disposition must be published in a report produced every six months.

4.7.10. Grievance Mechanism

The Grievance Redress Mechanism has been designed to be problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties. When making a complaint and/or grievance, all parties must act at all times, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.

The EIO ( ) is a federal entity accountable to the Federal Parliament and responsible for ensuring that the constitutional rights of citizens are not violated by executive organs. It receives and investigates complaints

in respect of maladministration; conducts supervision to ensure the executive carries out its functions according to the law; and seeks remedies in case of maladministration.

The Regional Public Grievance Hearing Offices (PGHOs) are regional entities accountable to their respective regional Presidents. They are responsible for receiving appeals, complaints and grievances related to public services and good governance; investigating these; and making recommendations and decisions to redress them. Most regions have established their PGHOs and have branches at zonal, woreda and kebele levels which are accountable to their respective chief administrator. At the kebele level, the Kebele Manager serves as the focal point.

A complainant has the option to lodge his/her complaint to the nearby EIO branch or the respective PGHO in person, through his/her representative, orally, in writing, by fax, telephone or in any other manner. Complaints are examined; investigated and remedial actions are taken to settle them. If not satisfied with the decision of the lower level of the Grievance Redress Mechanism system, the complainant has the right to escalate his/her case to the next higher level of administration. In addition, some regions have mobile grievance handling teams at woreda level to address grievances by clustering kebeles; some have good governance command posts to handle cases that have not been settled by the Kebele Manager and woreda PGHOs. PBS 3 is supporting Grievance Redress Mechanism system strengthening including the opening of new EIO branches**.**

MEFCC has a multi-pronged approach to receiving and handling of complaints about environmental and social harms caused by projects/programmes. Grievance Point Persons (GPPs) have been appointed within MEFCC to be responsible for the initial screening of complaints received and working with EIO on resolution of the complaints. Members of the public are made aware of their right to launch complaints about environmental and social harms caused by projects/programmes through radio and television programmes, which were launched to popularize the CRGE Facility. The CRGE Facility website encompasses information on safeguards aspects including the information on the public's right to complain and the avenues for making these complaints.

Level	Responsible Institution	Procedure
Federal Level	MEFCC + Project steering committee	MEFCC need to give response within one month
	Federal Ombudsman's Office	The Federal Ombudsman's can also give advice for unresolved issues before the case is submitted to the court
	Federal Court	Applicants may also pursue their cases through the court system, if they are not satisfied with the Grievance Redress System.
Regional Level	Regional Environment Office and PCU	If Applicants are not satisfied or referred to the regional environment office and the regional office should give response within 15 days,
	Regional Ombudsman's Office	Applicants may also get advice from the Regional Ombudsman's office
	Regional Court	Applicants may appeal to the court if it is not resolved at environment office
Woreda * Level	Woreda Environment office	Applicants may raise their grievance to the Woreda environment office and response should be given within 10 days. If the Applicant are not satisfied by their response they can take the issue to the Regional PCU or Woreda formal court
	Woreda Ombudsman's Office	Applicants can also submit their apple to the Ombudsman's for advice
	Woreda Court	Applicants can submit their appeal to the formal court and continue with the formal process
Kebele* Level	Kebele Shengo	Local communities and other interested stakeholders (Applicants) may raise a grievance/complaint to the Kebele manager for grievance caused by the project and need to get a response within 10 days

*Each woreda has an average population of 100,000. The kebele is the smallest unit of local government with an average population of 5,000.

In the context of the project, the MEFCC directorate General for Environmental and Social Impact Assessment and Licensing will be responsible for the project-level grievance redress mechanism. The contract details of the focal person responsible is:

Shiferaw Negash (Mr.),
Director General,
Environmental and Social Impact Assessment and Licensing,
Ministry of Environment, Forest and Climate Change
Email – shifeabbagada@gmail.com
Telephone: +251911936802

4.7.11. Key Environmental and Social Indicators

This section identifies the key environmental and social indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (i.e. auditable).This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues which require rectification and identify measures which will provide continuous improvement in the processes by which the projects are managed.

5. Flora and Fauna

The target woredas lie across a wide-range of agro-ecological zones.Based on the major agro-ecology zones the woredas can be classified as follows:

a. Arid and semi-arid zones:Biyo Awale, Gewane, Jigjiga, Kebribeyan, Meiso and Ziway Dugda (warm arid lowlands) and Genwane (warm arid lowlands);

b. Sub-moist: Adami Tulu-Jida, Lasta, Yallo, Saesi Tsadamba and Thaitay Koraro (warm and cool sub-moist middle and low lands);

c. Moist:Enebse Midir, Tach Gaynt, Sofi and Yabello (tepid moist midlands), Enebse Sarmidir (cool moist highlands), and Guba (warm moist lowlands); and

d. Warm and hot sub-humid lowlands: Abobo, Itang, Mareko, Hadero, Halaba.

Cultivation is the predominant land use / cover type over most of the project areas. Percentages of cultivation, under different intensities, constitutes between 75-100% of these areas (based on GIS assessment of land use done for the project). In Jijiga and Zeway-dugda project areas, cultivation covers between 60 and 70% of the land area; the remaining is natural vegetation.In Guba, Sherkole, Gewane, Mieso, Itang and Abobo project areas, natural vegetation is the dominant land cover type.

The major land uses of the selected kebeles fall under farming, grazing land, forest/woodlands and are typically highly degraded.Woodlands within the Kebeles are typically dominated by Acacias.While no specific flora and fauna surveys have been undertaken of the project areas, in some areas ‘land use and vegetation cover surveys’ estimate that up to 70% of the region is barren land (Afar 2010). Thus there is likely to be limited habitat available and competition with human uses is high.

It is assumed that the majority of the project areas have been previously disturbed, although vegetation may still exist.Further, it is assumed that irrigation areas will be located in areas that do not contain important or protected habitats.On the ground verification of specific locations will be undertaken immediately prior to any activities.

5.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no clearance of vegetation outside of the designated clearing boundaries;

b. net increase in vegetated areas, biodiversity, and supporting ecosystem parameters mainly focused on reduced soil erosion and water infiltration and retention;

c. no death to native fauna as a result of clearing activities;

d. no deleterious impacts on aquatic environments and terrestrial habitats;

e. no introduction of *new* weed species as a result of construction activities and through the planting of seeds that are adapted to climate change;

f. no increase in *existing* weed proliferation within or outside of any project foot print as a result of construction activities; and

g. successful establishment of rehabilitation works during mitigation incorporating species native to the local area.

5.2. Monitoring

A flora and fauna monitoring program has been developed for the project. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will when undertaking clearing works, will compile a weekly report to MEFCC outlining:

a. any non-conformances to this ESMP;

b. the areas that have been rehabilitated during the preceding week and

c. details of the corrective action undertaken.

5.3. Reporting

All flora and fauna monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP.MEFCC must be notified in the event of any suspected instances of death to native fauna and where vegetation if detrimentally impacted.

Table 1: Flora and Fauna Management Measures

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF1. Habitat loss and disturbance of fauna	FF1.1 Limit vegetation clearing and minimize habitat disturbance through adequate protection and management of retained vegetation.	Construction	Site Supervisor	Daily and maintain records
	FF1.2: Minimise noise levels and lighting intrusion throughout construction and operation in the vicinity of any sensitive locations.	Construction	Site Supervisor	Daily and maintain records
	FF1.3: Ensure that all site personnel are made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas.	Construction	Contractor	Daily and maintain records
	FF1.4 Minimise disturbance to onsite fauna and recover and rescue any injured or orphaned fauna during construction and operation.	Construction	Contractor	Daily and maintain records, report to MEFCC

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF2. Introduced flora and fauna species	FF2.1: Revegetate disturbed areas using native and locally endemic species that have high habitat value.	During construction	Site Supervisor	As required and maintain records
	FF2.2: Minimise disturbance to mature remnant vegetation, particularly canopy trees.	During construction	Site Supervisor	Daily and maintain records
	FF2.3: The removal of regrowth native trees should be minimised particularly where the width of a forest is narrow.	During construction	Site Supervisor	Daily and maintain records
	FF2.4: Small trees and shrubs shall be removed in preference to large trees.	During construction	Site Supervisor	Daily and maintain records
	FF2.5: Vegetation to be removed shall be clearly marked using paint or flagging tape.	During construction	Site Supervisor	Daily and maintain records
	FF2.6: Environmental weeds and noxious weeds within the project footprints shall be controlled.	All phases	Site Supervisor	Weekly and maintain records
	FF2.7: Development and implementation of Forest Management Plans for designated areas	All phases	MEFCC	Maintain records
FF3: Exposure to disease and pests	FF3.1 Increase resistance to disease and attack by utilising a mix of species and/or use of different provenances if single tree species being used.	Operation	MEFCC	Maintain records

6. Surface water and Groundwater Quality

Ethiopia has a tropical monsoon climate with a wide climatic variation induced by varying topography. Annual rainfall varies from less than 100 mm along the borders with Somalia and Djibouti to more than 2000 mm in the highlands of the south-west (Figure 3). The national average rainfall is 744 mm per year.

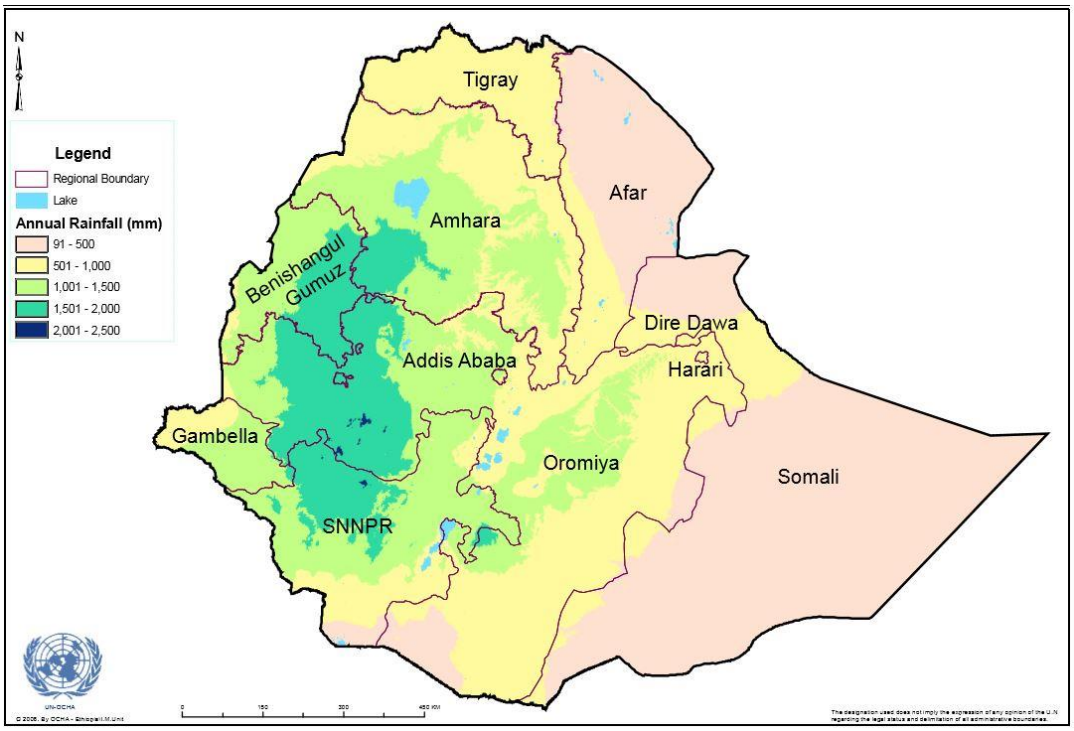

Figure 3. Average annual rainfall across Ethiopia[1]

Ethiopia has three climatological rainy seasons namely; February–May (Belg), June–September (Kiremt) and October–January (Bega) seasons. The seasonal rainfall progression is mostly influenced by the north to south migration of the Inter-Tropical Convergence Zone. The wet season, which spans from March to November over south western Ethiopia, broadly exemplifies these circumstances. Rift Valley and the adjoining escarpments generally, experience two rainy seasons; small (March-May) and main (June-September) rainy seasons, which are interrupted by dry months. Temporal variations in rainfall mean that parts of Ethiopia are highly prone to drought.

A subsidiary effect is that a large amount of rainfall on the highlands is concentrated as runoff in river valleys, which drain into the low-lying areas where annual rainfall is low. In almost all river basins in Ethiopia, some 80% of the runoff results from annual precipitation falling in four months from June to October. Two groups of factors mainly determine the extent of flow in streams: climatic and physical characteristics of the drainage basins.

Groundwater is an important source of water in Ethiopia and is the dominant source for domestic supply in many areas, especially the dry areas where surface waters are scarce and seasonal. Figure 4 shows the broad availability of groundwater throughout the country.

[1] http://reliefweb.int/map/ethiopia/ethiopia-annual-rainfall

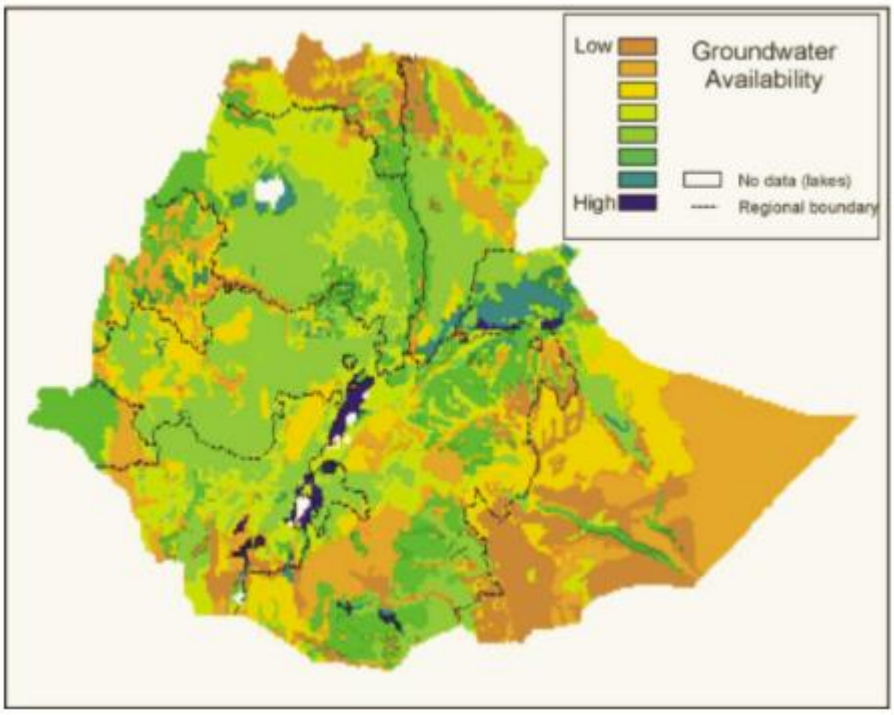

Figure4:Estimated groundwater availability. MacDonald et al., 2001[2]

Rainfall intensity plays significant role for groundwater recharge system. The main source of recharge for the vast groundwater systems is the rainfall in the highlands. The major recharge zone regionally occurs mainly from the south Eastern Highlands of Ethiopia.

It is well understood that geology plays an important role in the distribution and occurrence of groundwater and can have an effect on surface water quality. The concentrations, relative proportions and rates of transport of dissolved substances in water samples reflect their sources path and interactions with different substances. The geology in the project areas has been mapped and assessments of groundwater potential made.

The hydro-chemical classification of water, based on major cations and anions, indicates that groundwater in project areas are a mix of basic, transitional and mixed-type waters. Bicarbonate (HCO3) type is the dominant cation in most of Ethiopian waters and is generally due to the presence of rocks like limestone, dolomite, sandstone, silican and other minerals that are sources for HCO3 ions.

Groundwater quality in Ethiopia is known to be highly variable, ranging from fresh waters in many of the springs issuing from the crystalline basement rocks to more saline waters in parts of the Rift and the sedimentary formations of the plains.

Groundwater in the Rift zone is influenced by geothermal waters with abnormally high concentrations of fluoride and/or total dissolved salts. Fluoride is therefore a recognised major problem, especially for the communities living within the Rift. Observed increased salinity in many ground waters from sediments in the south, southeast and north-eastern parts of the country arises from the dissolution of evaporate minerals (the products of evaporation) in certain horizons of the sediments. Fluoride has long been a recognised water-related health concern in Ethiopia, as in other parts of the East African Rift.

[2] MacDonald, A.M., Calow, R.C., Nicol, A., Hope, B. and Robins, N.S. 2001. Ethiopia: water security and drought. BGS Technical Report WC/01/02

A range of human-induced activities, such as deforestation, overexploitation, pollution, and the spread of invasive alien species has degraded lands and led to declining land productivity. Combined with highly variable rainfall and loss of vegetative cover, this can lead to water quality issues.

A combination of interventions is envisaged, including development of small-scale irrigation, upgrading traditional irrigation schemes, construction of diversion weirs, and development of pipe supported irrigation schemes in the target Woredas. The project also intends to augment the above interventions through access to groundwater using solar powered pumping system which involves organising water well drilling, construction of shallow water wells, and installing solar powered submersible and surface pumps in the target communities.

Sources of water pollution include

a. soil erosion,
b. the main contributor to faecal coliform counts in water is the poor sanitation practices;
c. many different types of human activities that increase turbidity, change pH, add heavy metals and other types of pollutants including agri-chemicals, fertilizer runoff, oils, solid waste etc; and
d. activities during the construction phase of the project including construction waste, oil spilling of machineries, solid disposal etc.

Prior to the commencement of works, baseline data will be collected to develop a suitable monitoring regime.

6.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no significant decrease in water quality as a result of construction and operational activities;
b. no significant decrease in the quality and quantity of surface and/or groundwater as a result of construction and operational activities in proximity to the projects;
c. water quality shall conform to any approval conditions stipulated by MEFCC/MOWIE and/or other government departments, or in the absence of such conditions follow a ‘no worsening’ methodology; and
d. effective implementation of site-specific EDSCPs(Erosion, Drainage, Sediment Control Plans).

By following the management measures set out in the ESMPthe project will not have a significant impact on water quality across the broader area.

6.2. Monitoring

A standardised water quality monitoring program has been developed for the project.The program is subject to review and update at least every two months from the date of issue.The site supervisor will be required to conduct a visual inspection and take water samples as appropriate for nitrates, phosphates, faecal coliforms, heavy metals, turbidity and oil/grease within or adjacent to their work area as a part of the daily site inspection checklist.

6.3. Reporting

All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP.The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

Table 2: Water Quality Management Measures

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
W1: Elevated suspended solids, nitrates, phosphates, faecal coliforms, heavy metals, silt content and turbidity in surface and groundwater systems.	W1.1: Develop and implement a site specific EDSCPs to address drainage control, sediment and erosion controls and stockpiling of materials including soil during construction of all components of the projects. EDSCP measures to be inspected regularly to ensure all devices are functioning effectively.	Pre Earthworks	Site Supervisor	Initial set up and then as required with reporting to MEFCC
	W1.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage. Refuelling to be undertaken in areas away from water systems.	Construction and operation phase	All Personnel	Weekly with reporting to MEFCC
	W1.3: Conduct regular surface and groundwater quality monitoring in location where the groundwater is likely to be impacted, including assessing the changes to groundwater quality.	Construction and operation phase	Site Supervisor	Weekly and as required with reporting to MEFCC
	W1.4: Schedule works in stages to ensure that disturbed areas are revegetated and stabilized progressively and as soon as practicable after completion of works.	Pre Earthworks	Site Supervisor and MEFCC	Maintain records
	W1.5: Construction materials will not be stockpiled in proximity to aquatic environment that may allow for release into the environment. Construction equipment will be removed from in proximity to the aquatic environment at the end of each working day or if heavy rainfall is predicted	Construction and operation phase	Site Supervisor	Maintain daily records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
W2: Eutrophication of surrounding aquatic environments and impacts from elevated nutrient levels.	W2.1 Minimize the release of clays and very fine silts into the aquatic environment through the installation of sediment basins, rock checks and sediment fences in appropriate places as outlined in the EDSCPs. Sediment control structures to be inspected regularly.	Entire construction phase	All Personnel	Weekly with reporting to MEFCC
W3: Excessive use of groundwater leading to draw down of water table and possible land subsidence.	W3.1: Pump tests and groundwater quality studies should be carried out to determine suitability of groundwater and the safe yield.	Pre-construction	Site supervisor and MEFCC	Maintain records
	W3.2: Care must be exercised not to over pump. Maximum pump regimes to be determined based on assessment data and monitoring	Post-construction	MEFCC and farmers	Maintain records and report to MEFCC
	W3.3:Farmers to be trained on proper irrigation practices	Post-construction	MEFCC	Maintain records
W4: Water logging and salinization due to irrigation malpractice	W4.1: Provide training to farmers on proper irrigation practices	Post-construction	MEFCC	Maintain records
	W4.2: Implement surface and groundwater monitoring systems	Post-construction	MEFCC	Maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
W5: Increase of gross pollutants, hydrocarbons, metals and other chemical pollutants into the groundwater and/or surface water environment.	W5.1: Reuse suitable water runoff from site to supplement construction water supply.	Construction	All Personnel	Weekly with reporting to MEFCC
	W5.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should: 1. Have compacted impermeable bases; and 2. Surrounded by a bund to contain any spillage.	All phases	All Personnel	Weekly with reporting to MEFCC
	W5.3: Check all vehicles, equipment and material storage areas daily for possible fuel, oil and chemical leaks. Undertake refuelling at designated places away from water systems.	All phases	All Personnel	Daily and maintain records
	W5.4: Rubbish and waste materials to be placed in suitable facilities to ensure that they do not enter aquatic environments. Ensure all absorbent material is placed in contaminant bags prior to removal.	All phases	All Personnel	Weekly reporting to MEFCC
	W5.5: Minimize the use of herbicides and use only biodegradable herbicides that have minimal impact on water quality and fauna .Use only as per directions.	All phases	All personnel	Maintain records
	W.5.6: Used oil traps and other effluent/discharge management interventions to be put in place;	All phases	All Personnel	Weekly reporting to MEFCC

7. Erosion, Drainage and Sediment Control

Soils in the project areas have been mapped using GIS. Seventeen major soil types have been observed.

Leptosols are widely spread, occurring in 16 project areas, and is mainly found in Tachgaynt (92%), Lasta (93%), and Bilo-Awale (77%). Leptosol also covers 30-40% of Thaetay-Keraro, Saesi-Tsadamba and Enebse-sarmidir. Cambisols dominate most of the project areas (24%) and are predominantly found in Jigjiga (54%) Kebri-beyah (56%) and Halaba (45%) areas. Vertisols covering 13% of the project areas constitute 23 to 37% of Jijiga, Abobo and Itang areas. Nitisols covering 10% of project areas are dominantly found in Sherkole (82%). Luvisols are mainly found in Mareko and Sofi and to a lesser extent in Saesi-Tsadamba, Miesso, Guba, Enebse-sarmidir and Halaba areas. Fluvisos are found in western parts of the project areas, namely, Itang, Abobo, Guba, and Sherkole as well in Gewane and Yabelo areas.

Other major soil types constitute less than two percent of project areas and are localized to one or two sites; Andosols to Adami-tulu-Jido-kombolcha and Zeway-Dugda, Regosols to Gewane and Mieso, Acrisols to Guba and Sherkole, Plinthosols and Planosols to Abobo and Itang and Calicsols to Kebribeyah. Generally, Gleysols, Solonetz, Arenosol, and Alisol have very small occurrences within the project areas. These major soil types have 2-7% coverage in areas such as Adami-tulu-Jido-kombolcha, Thaetay-Keraro, Saesi-Tsadamba, Itang and Sofi, exception is Arenosol which cover 32% of Halaba.

Soil erosion depends on several parameters such as type of soil, slope, vegetation, the nature of topography and rainfall intensity. The loss of soil stability and soil erosion can takes place due to the removal of vegetation cover, and numerous construction activities. It can cause the loss of soil fertility and induce slope instability .Land preparation for the project could result in blockage or alteration of natural flow paths causing changes in the drainage patterns in the area. Effective and efficient mitigation measures can not only reduce, but could improve the conditions over the existing conditions.

The project will undertake physical and biological soil and water conservation treatments, rehabilitation of degraded lands, and development of small-scale irrigation schemes. All these activities have the potential to cause erosion if not properly managed.

Activities that have the potential to cause erosion should be undertaken with the likely weather conditions in mind. Figure 5 shows typical rainfall by month for each of the project areas.

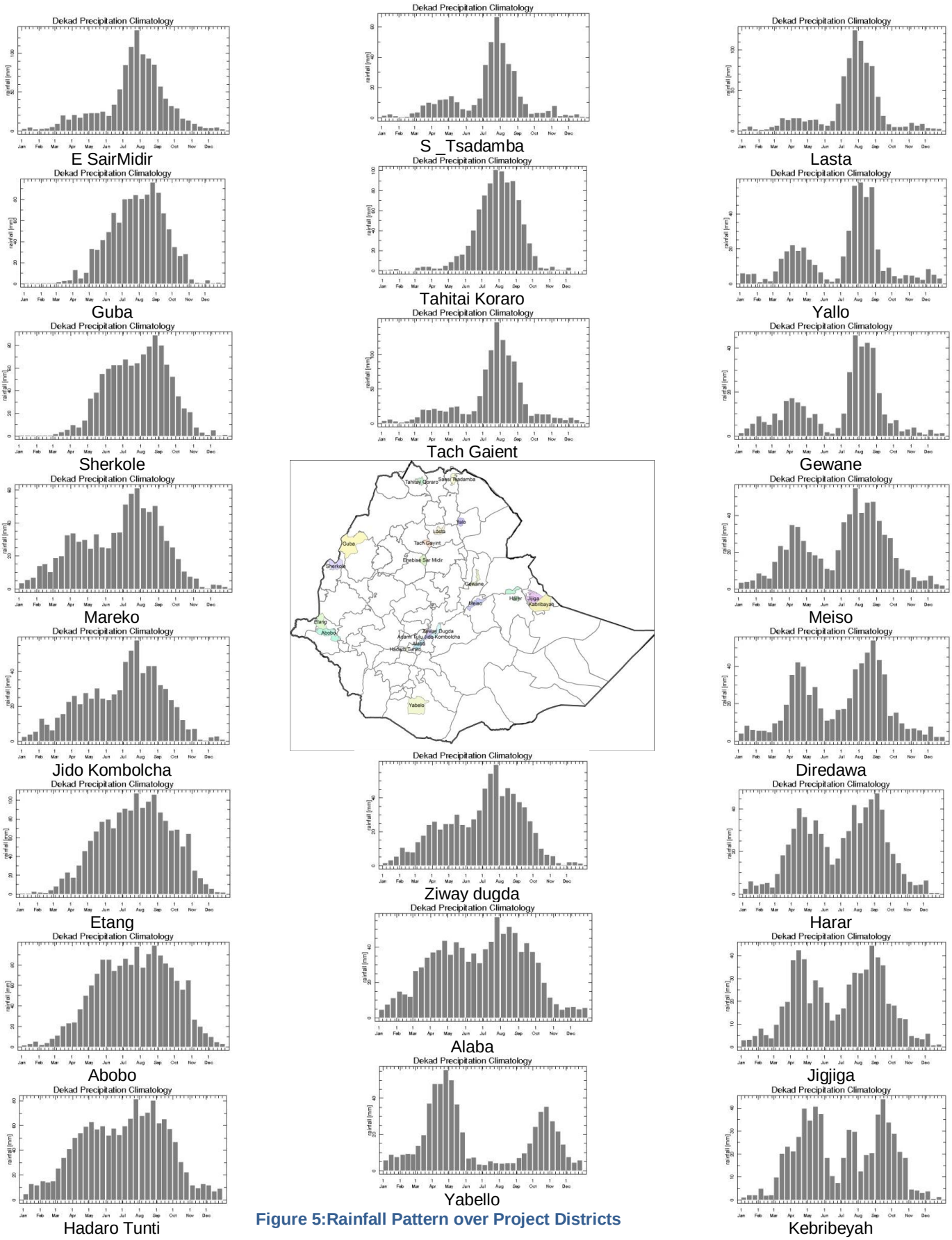

Figure 5:Rainfall Pattern over Project Districts

7.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no build-up of sediment in the aquatic environments and/or surface and/or groundwater as a result of construction and operation activities;

b. no degradation of water quality on or off site of all projects;

c. all water exiting the project site and/or into groundwater systems is to have passed through best practice erosion, drainage and sediment controls; and

d. effective implementation of site-specific EDSCP.

By following the management measures set out in the ESMP, construction and operation activities of the projects will not have a significant impact as a result of sedimentation across the broader area.

7.2. Monitoring

A standardised sediment control-monitoring program has been developed for the projects .The program is subject to review and update at least every two months from the date of issue. The site supervisor will be required to:

a. conduct site inspections on a weekly basis or after rainfall events exceeding 20mm in a 24 hour period;

b. develop a site-specific checklist to document non-conformances to this ESMP or any applicable EDSCPs; and

c. communicate the results of inspections and/or water quality testing to the Site Supervisor and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.

It is the responsibility of the site supervisor to:

a. conduct daily inspections of EDSCP control measures as part of the Daily Check Procedure; and

b. consult with MEFCC when a non-conformance is suspected and amend accordingly.

7.3. Reporting

All sediment and erosion control monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to erosion and sediment control is exceeded.

Table 3: Erosion, Drainage, Sediment Control Measures

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.1: Develop and implement an Erosion, Drainage and Sediment Control Plan (EDSCP) for any surface works, embankments and excavation work, water crossings and stormwater pathways.	Construction phase	All Personnel	Maintain records
	E1.2: Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Construction phase	All Personnel	Maintain records
	E1.3: Schedule/stage works to minimize cleared areas and exposed soils at all times.	Pre and during construction	Site Supervisor	Maintain records
	E1.4: Incorporate the design and location of temporary and permanent EDSC measures for all exposed areas and drainage lines. These shall be implemented prior to pre-construction activities and shall remain onsite during work	Pre and during construction	Site Supervisor	Maintain records
	E1.5: Schedule/stage proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.	Pre and during construction	Site Supervisor	Maintain records
	E1.6: Strip and stockpile topsoil for use during revegetation and/or place removed soils back on to agricultural lands.	Pre and during construction	Site Supervisor	Maintain records
	E1.7: Schedule/stage works to minimize the duration of stockpiling topsoil material. Vegetate stockpiles if storage required for long periods.	During construction	All Personnel	Maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
E1: Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	E1.8: Locate stockpile areas away from drainage pathways, waterways and sensitive locations.	Pre and during construction	Site Supervisor	Maintain records
	E1.9: Design stormwater management measures to reduce flow velocities and avoid concentrating runoff.	Pre and during construction	Site Supervisor	Maintain records
	E1.10: Include check dams in drainage lines where necessary to reduce flow velocities and provide some filtration of sediment. Regularly inspect and maintain check dams.	Pre and during construction	Site Supervisor	Maintain records
	E1.11: Mulching shall be used as a form of erosion and sediment control and where used on any slopes (dependent on site selection), include extra sediment fencing during high rainfall.	During construction	All Personnel	Maintain records
	E1.12: Bunding shall be used either within watercourses or around sensitive/dangerous goods as necessary.	During construction	All Personnel	Maintain records
	E1.13: Grassed buffer strips shall be incorporated where necessary during construction to reduce water velocity.	During construction	Site Supervisor	Maintain records
	E1.14: Silt fences or similar structures to be installed to protect from increased sediment loads.	During construction	Contractors	Maintain records
	E1.15: Excess sediment in all erosion and sediment control structures (eg. sediment basins, check dams) shall be removed when necessary to allow for adequate holding capacity.	During construction	Contractors	Maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
E2: Soil contamination	E2.1: If contamination is uncovered or suspected (outside of the project footprints), undertake a Stage 1 preliminary site contamination investigation. The contractor should cease work if previously unidentified contamination is encountered and activate management procedures and obtain advice/permits/approval (as required).	Construction phase	All Personnel	Daily and maintain records
	E2.2: Adherence to best practice for the removal and disposal of contaminated soil/ material from site (if required), including contaminated soil within the project footprints.	Construction phase	All Personnel	Daily and maintain records
	E2.3: Drainage control measures to ensure runoff does not contact contaminated areas (including contaminated material within the project footprints) and is directed/diverted to stable areas for release.	Construction phase	All Personnel	Daily and maintain records
	E2.4: Avoid importing fill that may result in site contamination and lacks accompanying certification/documentation. Where fill is not available through on site cut, it must be tested in accordance with geotechnical specifications.	Construction phase	All Personnel	Daily and maintain records

8. Noise and Vibration

All construction and operation activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project.

The project activities are being implemented in areas that are predominately rural in nature (used for farming and grazing) or woodland and therefore do not have existing significant noise sources. The use of machinery or introduction of noise generating facilities could have an adverse effect on the environment and residents if not appropriately managed. It is assumed that there are no sensitive receptors in proximity to the projects.

Contractors involved in construction and rehabilitation activities should be familiar with methods of controlling noisy machines and alternative construction procedures as contained within specific Ethiopian legislation or in its absence, international good practice may be used if the legislation has not been enacted**.**

The detail, typical equipment sound power levels, provides advice on project supervision and gives guidance noise reduction. Potential noise sources during construction may include:

a. heavy construction and forestry machinery;

b. power tools and compressors;

c. delivery vehicles;

d. drill rigs; and

e. pumps

8.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. noise from construction and operational activities must not cause an environmental nuisance at any noise sensitive place;

b. undertake measures at all times to assist in minimizing the noise associated with construction activities;

c. no damage to off-site property caused by vibration from construction and operation activities; and

d. corrective action to respond to complaints is to occur within 48 hours.

8.2. Monitoring

A standardized noise monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:

a. ensure equipment and machinery is regularly maintained and appropriately operated; and

b. carry out potentially noisy construction activities during ‘daytime’ hours only; i.e. 7am to 5.30pm.

8.3. Reporting

All noise monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded.

Table 4: Noise and Vibration Management Measures

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
N1: Increased noise levels	N1.1: Select plant and equipment and specific design work practices to ensure that noise emissions are minimized during construction and operation including all pumping equipment.	All phases	Contractor	Maintain records
	N1.2: Specific noise reduction devices such as silencers and mufflers shall be installed as appropriate to site plant and equipment.	Pre and during construction	Contractor	Maintain records
	N1.3 Minimize the need for and limit the emissions as far as practicable if noise generating construction works are to be carried out outside of the hours: 7am-5.30pm	Construction phase	All Personnel	Daily and maintain records
	N1.4: Consultation with nearby residents in advance of construction activities particularly if noise generating construction activities are to be carried out outside of 'daytime' hours: 7am-5.30pm.	Construction phase	All Personnel	Daily and maintain records
	N1.5 The use of substitution control strategies shall be implemented, whereby excessive noise generating equipment items onsite are replaced with other alternatives.	Construction phase	All Personnel	Daily and maintain records
	N1.6 Provide temporary construction noise barriers in the form of solid hoardings where there may be an impact on specific residents.	Construction phase	Site Supervisor	Daily and maintain records
	N1.7 All incidents complaints and non-compliances related to noise shall be reported in accordance with the site incident reporting procedures and summarized in the register.	Construction phase	Site Supervisor	Maintain records
	N1.8 The contractor should conduct employee and operator training to improve awareness of the need to minimize excessive noise in work practices through implementation of measures.	Pre and during construction	Contractor	Maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
N2. Vibration due to construction	N2.1: Identify properties, structures and habitat locations that will be sensitive to vibration impacts resulting from construction and operation of the project.	Pre and during construction	Contractor	Maintain records
	N2.2: Design to give due regard to temporary and permanent mitigation measures for noise and vibration from construction and operational vibration impacts.	Pre-construction	Contractor	Maintain records
	N2.3: All incidents, complaints and con-compliances related to vibration shall be reported in accordance with the site incident reporting procedures and summarized in the register.	Construction phase	Site Supervisor	Maintain records
	N2.4: During construction, standard measure shall be taken to locate and protect underground services from construction and operational vibration impacts.	Construction phase	Site Supervisor	Maintain records

9. Air Quality

All construction, drilling and rehabilitation activities have the potential to cause air quality nuisance.

The project areas are predominantly rural or woodland in character. Existing air quality reflects those environments, with dust and emission from vehicles being the main air quality nuisance.

Contractors involved in construction and operation activities should be familiar with methods minimizing the impacts of deleterious air quality and alternative construction procedures as contained in Ethiopian legislation or international good practice.

9.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. release of dust/particle matter must not cause an environmental nuisance;

b. undertake measures at all times to assist in minimizing the air quality impacts associated with construction and operation activities; and

c. corrective action to respond to complaints is to occur within 48 hours.

9.2. Monitoring

A standardized air monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:

a. ensure all stockpiles are covered so as to not allow dust to generate; and

b. the requirement for dust suppression will be visually observed by all personnel daily and by MEFCC when undertaking routine site inspections (minimum frequency of once per week).

9.3. Reporting

All air quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to air quality is exceeded.

Table 5: Air Quality Management Measures

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
A1: Increase in dust levels at sensitive locations	A1.1: Implement effective dust management measures in all areas during design, construction and operation.	Pre and during construction	All Personnel	Daily and maintain records
	A1.2: Install dust gauges at locations identified for significant construction lay down and stockpiling areas.	During construction	Site Supervisor	Daily and Weekly Reports
	A1.3: Manage dust/particulate matter generating activities to ensure that emissions do not cause an environmental nuisance at any sensitive locations	During construction	Site Supervisor	Daily and maintain records
	A1.4: Construction activities should minimizing risks associated with climatic events.	During construction	Site Supervisor	Daily and maintain records
	A1.5: Implement scheduling/staging of proposed works to ensure major vegetation disturbance and earthworks are minimized.	Entire construction	Contractor	Daily and maintain records
	A1.6: Ensure that materials to be stockpiled onsite are not ordered and/or purchased until they are required for works.	Entire construction	Contractor	Daily and maintain records
	A1.7: Locate material stockpile areas as far as practicable from sensitive receptors.	During construction	Site Supervisor	Daily and maintain records
	A1.8: Source sufficient water of a suitable quality for dust suppression activities complying with any water restrictions.	During construction	Site Supervisor	Daily and maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
A1: Increase in dust levels at sensitive locations	A1.9: Schedule revegetation activities to ensure optimum survival of vegetation species.	During construction	Site Supervisor	Maintain records
	A1.10: Ensure an air quality management plan is developed and implemented.	Pre and during construction	Contractor	Maintain records
	A1.11: Rubbish skips and receptacles should be covered and located as far as practicable from sensitive locations	During construction	Site Supervisor	Maintain records
	A1.12: Restrict speeds on roads and access tracks.	During construction	Site Supervisor	Daily and maintain records
	A1.13: Cover loads of haul trucks and equipment and plant when not in use and in transit.	During construction	Site Supervisor	Daily and maintain records
A2. Increase in vehicle emissions (including odours and fumes)	A2.1 Ensure construction vehicles are switched off when not in use.	During construction	Site Supervisor	Daily and maintain records
	A2.2 Ensure only vehicles required to undertake works are operated onsite.	During construction	Site Supervisor	Daily and maintain records
	A2.3 Ensure all construction vehicles, plant and machinery are maintained and operated in accordance with design standards and specifications.	During construction	Site Supervisor	Daily and maintain records

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
A2. Increase in vehicle emissions (including odours and fumes)	A2.4 Develop and implement an induction program for all site personnel, which includes as a minimum an outline of the minimum requirements for environmental management relating to the site.	Pre and during construction	Contractor	Daily and maintain records
	A2.5 Locate construction car park and vehicle/plant/equipment storage areas as far as practicable from sensitive locations.	During construction	Site Supervisor	Daily and maintain records
	A2.6 Direct exhaust emissions of mobile plant away from the ground.	During construction	Site Supervisor	Daily and maintain records
	A2.7 Rubbish skips and receptacles should be covered and located as far as practicable from sensitive locations.	During construction	Site Supervisor	Daily and maintain records

10. Chemical and Fuel Management

The key types of chemicals and fuels that are likely to be stored on-site during construction and drilling of groundwater include but are not limited to:

a. diesel and unleaded petrol for the refuelling of plant equipment and generators; and

b. grease etc used during construction and drilling operations;

If not handled, stored or used appropriately, contamination of land and the surface water and groundwater systems could occur. The accidental discharge of hazardous materials during construction and operation activities is a potential risk to the local environment. Accordingly, all oil, grease, diesel, petrol and chemicals should be stored off site within a bonded area.

Potential activities which could result in spills are:

a. use of machinery and vehicles – potential for fuels, oils and lubricant spills;
b. transport, storage and handling of fuels, machinery oils, grease;
c. transport, storage and handling of cement/asphalt(bitumen) and other construction materials;
d. potential release of any chemicals used in irrigation schemes or forestry operations into the surrounding environment; and
e. impacts associated with hazardous materials will primarily be associated with the storage and handling during the construction and operation phase.

10.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. ensure a Material Safety Data Sheet (MSDS) Register should be developed for all chemicals and fuels retained on site;
b. handling and storage of hazardous material is in accordance with the relevant legislation and best management practices;
c. all spills are reported to MEFCC within ***one hour*** of occurrence; and
d. no spills enter the local aquatic environments; and
e. prevent the uncontrolled release of oil, grease and diesel to the environment;
f. no spills of hazardous materials;
g. no chemical spills into the groundwater aquifers; and
h. no contamination of land due to spills of hazardous materials.

10.2. Monitoring

A chemical and fuel management program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor should:

a. conducted daily chemical and fuel assessments as part of their daily check procedure;
b. manage the selection, purchase, storage, handling and disposal of chemicals to ensure minimal environmental impact;
c. regularly inspect equipment that uses fuel, lubricants and/or hydraulic fluid;
d. regular inspect all equipment used in the sterilization and purification process for leaks etc;
e. develop procedures and install equipment to contain, minimize and recover spills; and
f. provide staff with procedures and training in spill prevention and clean up.

10.3. Reporting

The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level as a result of a chemical or fuel leak or spill.

Table 6: Chemical and Fuels Management Measures

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
C1 Poor management of chemicals and fuels	C1.1: Prepare spill management plan addressing measures	Pre-construction	Contractor	Maintain records and weekly reporting
	C1.2: Store/handle all chemicals, fuels, oils and potentially hazardous materials as specified in relevant standards and guidelines. All hazardous materials to be approved for use onsite. All hazardous materials and construction fuel will be stored in appropriate storage facilities (e.g. fuel/chemicals will be stored in a bonded area).	During Construction	Site Supervisor	Daily and maintain records
	C1.3: Hydrocarbon wastes shall be stored in colour coded and labelled drums placed around fuelling depots and disposed of.	During Construction	Site Supervisor	Daily and maintain records
	C1.4: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations/site depot.	During Construction	Site Supervisor	Daily and maintain records
	C1.5: Onsite storage of fuel and chemicals shall be kept to a minimum.	During Construction	Site Supervisor	Daily and maintain records
	C1.6: Emergency clean up kits for oil and chemical spills will be available onsite and in all large vehicles.	During Construction	Site Supervisor	Daily and maintain records

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
C1 Poor management of chemicals and fuels	C1.7: Refuelling activities to preferentially occur off site however if required onsite ensure refuelling activities occur in designated areas of the site where appropriate temporary protection measures have been designed/located and are no less than 20 meters from surface waters and drainage lines.	During Construction	Site Supervisor	Daily and maintain records

11. Social Management

The project has been designed with the assistance of stakeholders and aims to provide benefits to the broader community. Nonetheless, as with any project that involves construction, drilling or changes in land use, some dissatisfaction can occur and conflicts may arise .It is important that potential areas of tension are recognized early and appropriate actions taken to avoid or minimize conflict. This project does not involve expropriation of land from individuals. The essence of the project is to improve water availability to farmers, hence will make sure that water for irrigation is available for their use. Through a consultative process the project will use communal lands for community ponds and reservoirs. Communities in Ethiopia in general make use of such communal lands for such services and the project will make sure that this process is consent based. In case applicable, the Ethiopian government laws and GCF performance standards contain appropriate provisions with regards to compensation.

A Woreda Coordination Office will be established in each of the 22 participating woredas under the office of the Woreda Administrator, and headed by woreda/landscape project coordinators. The Woreda Project Coordinators will run day-to-day project activities and processes, engage stakeholders, and mobilize communities at target landscape level. Within each Woreda, kebele/village committees will engage in project implementation, their responsibilities including but not being limited to beneficiary selection, mobilizing community contribution and representing the community in project management.

11.1. Performance Criteria

The following performance criteria have been set for the project:

a. the community has been consulted and project elements have been designed with their informed consultation and participation throughout the project;
b. all stakeholders are appropriately represented;
c. avoid adverse impacts to local community during construction and operations and where not possible, minimize, restore or compensate for these impacts;
d. community land use is maximized and where minor additional areas of land required, then acquisition is negotiated and compensation provided;
e. cultural heritage is not adversely impacted;
f. community health and safety is protected and overall well-being benefits derived from the project;
g. complaint and grievance mechanisms are put in place and proactively managed; and
h. long-term social benefits are achieved.

11.2. Monitoring

Local stakeholders and community members have a key role to play in the implementation and monitoring of the project. Consultation with stakeholders will continue. This will help ensure that stakeholders continue to be aware of the project, its progress and any changes in the project. It will also assist in identifying any issues as they arise. At the kebele (community) levels, Development Agents (DAs) will be responsible for advisory support and extensions services to local beneficiaries (mainly farmers). DAs will be responsible for distributing material inputs and providing technical training and backstopping in the implementation of programme activities.

11.3. Reporting

Records of all consultations are to be kept and reported on monthly basis. The MEFCC must be notified in the event of any individual or community complaint or dissatisfaction and ensure the Grievance Redress Mechanism is complied with.

Table 7: Social Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
SM1: Changes in land use leading to conflict	SM 1.1: Carry out community consultation on the purpose and benefits of making changes to land use	Pre-construction	MEFCC	Maintain records
	SM 1.2: Get community buy-in on change of land use	Pre-construction	MEFCC	Maintain records
	SM 1.3: Use community land or compensate in accordance to the requirements of the rural land administration and use proclamation (No. 456/2005)	Pre-construction	MEFCC	Maintain records
	SM 1.4: Prepare the by-law and pre-test it at selected woredas and kebeles before making use of the bylaws in project implementation	Pre-construction	MEFCC	Maintain records
	SM 1.5: Ensure compliance with the Grievance Redress Mechanism process	Throughout project	MEFCC	Maintain records
SM2: Long-term conflict related to benefit sharing	SM 2.1: Carry out community consultation on the purpose and benefit sharing	Pre-construction	MEFCC	Maintain records
	SM 2.2: Develop community led and owned by-law, which clearly stipulates benefit sharing from the use of this communal land and is endorsed by the community	Pre-construction	MEFCC	Maintain records
	SM 2.3: Ensure compliance with the Grievance Redress Mechanism process	Throughout project	MEFCC	Maintain records
SM3: Water allocation conflict	SM 3.1: Carry out community consultation on water supply system, purpose and management	Pre-construction	MEFCC	Maintain records
	SM 3.2: Develop a water supply management plan with agreed allocation sharing provisions	Pre-construction	MEFCC	Maintain records

Issue	Mitigation Measures andControl Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
SM3: Water allocation conflict	SM 3.3: Ensure compliance with the Grievance Redress Mechanism process	Throughout project	MEFCC	Maintain records
SM4: public nuisance caused by construction/operation activities (eg noise, dust etc)	SM 4.1: Carry out community consultation prior to undertaking activities	Pre-construction	MEFCC	Maintain records
	SM 4.2: Implement appropriate management plans (refer to Noise, Air, ESCP, and Waste sections of ESMP)	Construction and operation	Site supervisor and MEFCC	Daily and maintain records
	SM 4.3: Ensure compliance with the Grievance Redress Mechanism process	All phases	MEFCC	Maintain records

12. Waste Management

The MEFCC advocate good waste management practice. The preferred waste management hierarchy and principles for achieving good waste management is as follows:

a. waste avoidance(avoid using unnecessary material on the projects);

b. waste re-use (re-use material and reduce disposing);

c. waste recycling (recycle material such as cans, bottles, etc.); and

d. waste disposal (all putrescible and/or contaminated waste to be dumped at approved landfills).

The key waste streams generated during construction are likely to include residual sediment and construction wastes such as:

a. the excavation wastes unsuitable for reuse during earthworks;

b. wastes from construction and drilling equipment maintenance. Various heavy vehicles and construction equipment will be utilized for the duration of the construction and drilling phase. Liquid hazardous wastes from cleaning, repairing and maintenance of this equipment may be generated. Likewise leakage or spillage of fuels/oils within the site needs to be managed and disposed of appropriately;

c. non-hazardous liquid wastes will be generated through the use of workers' facilities such as toilets; and

d. general wastes including scrap materials and biodegradable wastes

Contractors involved in construction and operational activities should be familiar with methods minimizing the impacts of clearing vegetation to minimize the footprint to that essential for the works and rehabilitate disturbed areas .By doing these activities, the projects should minimize the impact of waste generated by the project.

12.1. Performance Criteria

The following performance criteria are set for the construction of the projects:

a. waste generation is minimized through the implementation of the waste hierarchy (avoidance, reduce, reuse, recycle);

b. no litter will be observed within the project corridor or surrounds as a result of activities by site personnel;

c. no complaints received regarding waste generation and management;

d. any waste from on-site portable sanitary facilities will be sent off site for disposal by a waste licensed contractor; and

e. waste oils obtained from the oil separator will be collected and disposed or recycled off-site, local oil companies or shipped for recycling.

12.2. Monitoring

A waste management monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue.

12.3. Reporting

The MEFCC must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to waste is exceeded.

Table 8: Waste Management Measures

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
WT1: Production of wastes and excessive use of resources	WT1.1: Preference shall be given to materials that can be used to construct the project that would reduce the direct and indirect waste generated.	Pre and during construction	Contractor	Maintain records
	WT1.2: Daily waste practices shall be carried out unless these are delegated to the activities of external waste management bodies.	During construction	Site Supervisor	Daily and maintain records
	WT1.3: The use of construction materials shall be optimized and where possible a recycling policy adopted.	During construction	Site Supervisor	Weekly and maintain records
	WT1.4: Separate waste streams shall be maintained at all times i.e. general domestic waste, construction and drilling waste and contaminated waste. Specific areas on site shall be designated for the temporary management of the various waste streams. Adequate signage and colour coded bins will be used for each waste streams.	During construction	Site Supervisor	Weekly and maintain records
	WT1.5: Any contaminated waste shall be disposed of at an approved landfill.	During construction	Site Supervisor	Weekly and maintain records
	WT1.6: Recyclable waste (including oil and some construction waste) shall be collected separately and disposed of correctly.	During construction	Site Supervisor	Weekly and maintain records
	WT1.7: Waste sites shall be sufficiently covered daily to ensure that wildlife does not have access.	During construction	Site Supervisor	Daily

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
WT1: Production of wastes and excessive use of resources	WT1.8: Disposal of waste including all filters shall be carried out in accordance with the Government of Ethiopia requirements.	During construction	Site Supervisor	Weekly and maintain records
	WT1.9: Fuel and lubricant leakages from vehicles and plant including drill rigs shall be immediately rectified.	During construction	Site Supervisor	Daily and maintain records
	WT1.10: Major maintenance and repairs shall be carried out off-site whenever practicable.	During construction	Site Supervisor	Weekly and maintain records
	WT1.11: Disposal of trees shall be undertaken in accordance with one or more of the following methods: a. Left in place; b. Chipped and mulched; and Large trunk sections may be sold/passed on to a commercial mill.	During Construction	Site Supervisor	Weekly and maintain records
	WT1.12: Hydrocarbon wastes shall be stored in colour coded and labelled drums placed around fuelling depots.	During Construction	Site Supervisor	Daily and maintain records
	WT1.13: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations.	During Construction	Site Supervisor	Daily and maintain records

Issue	Mitigation Measures and Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
WT1: Production of wastes and excessive use of resources	WT1.14: On-site storage of fuel and chemicals shall be kept to a minimum.	During Construction	Contractor	Daily, maintain records and report any incidents
	WT1.15: Any waste oils and lubricants are to be collected and transported to recyclers or designated disposal sites as soon as possible.	During Construction	Site Supervisor	Daily and maintain records
	WT1.16: Any dangerous goods stored on site shall be stored in accordance with Ethiopian regulations.	During Construction	Contractor	Daily and maintain records

13. ESMP Implementation Cost

The ESMP implementation cost described items that would incur additional cost for implementation. Impact areas (under Section 6 to 12) that can be addressed through the operational budget of the project are not included here. The financial figures here are estimated and may not be highly accurate.

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
Flora and Fauna Management Measures				
Introduced flora and fauna species	Revegetate disturbed areas using native and locally endemic species that have high habitat value.	Estimate of disturbed area for the construction of wells, ponds, irrigation fields is approximately 1000 sq m per kebele and the project will be implemented in 66 kebeles, giving a total area of 66,000 sq. m	0.2 USD per sq. m for seedlings	13,200 USD
Water Quality Management Measures				
Elevated suspended solids, nitrates, phosphates, faecal coliforms, heavy metals, silt content and turbidity in surface and groundwater systems.	Conduct regular surface and groundwater quality monitoring in location where the groundwater is likely to be impacted, including assessing the changes to groundwater quality.	**Water quality monitoring:** Full WHO standard analysis to be conducted annually. • For 112 wells, the contractor will be responsible to conduct a full analysis after completing the groundwater drilling work and before handing over the well for operation (in year 3 of project). Hence water quality analysis will be required on annual basis in year 4 and 5 of the project. • For 80 hand-dug wells that will be used to provide drinking water, water quality will be analyzed annually in year 3 (upon completion of the well), and year 4 and 5 during operation.	US$175 per sample for full WHO standard analysis	81,200 USD

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
Eutrophication of surrounding aquatic environments and impacts from elevated nutrient levels.	Minimize the release of clays and very fine silts into the aquatic environment through the installation of sediment basins, rock checks and sediment fences in appropriate places as outlined in the EDSCPs. Sediment control structures to be inspected regularly.	Depending on site slopes and soil conditions several sediment retention fences may be required. For budgetary purposes about 5 check dams in each kebele is assumed, i.e. 330 check dams in total	500 USD per check dam	165,000 USD
Excessive use of groundwater leading to draw down of water table and possible land subsidence.	Training of extension workers on environmental management practice in relation to irrigation	Training environmental management practice in relation to irrigation to 90 members of the project team working on the ground 2 days.	• Trainer fees and training manual preparation = 6000 USD • Transport & subsistence allowance for trainees= 50 USD/day • Printing cost = USD 25 per trainee • enue and other expenses = 25 USD per day per trainee	22,000 USD
Water logging and salinization due to irrigation	Implement surface and groundwater monitoring systems	Cost already captures under environmental and social issue Elevated suspended solids…in surface and groundwater systems *"Conduct regular surface and*	-	-

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
malpractice		*groundwater quality monitoring in location where the groundwater is likely to be impacted…"*		
Erosion, Drainage, Sediment Control Measures				
Loss of soil material and sedimentation to the surface and/or groundwater systems from site due to earthwork activities	Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Cost captured under – Eutrophication of surrounding aquatic environments…. – "Minimize the release of clays and very fine silts into the aquatic environment through the installation of sediment basins, rock checks and sediment fences in appropriate places…".	-	-
Noise and Vibration Management Measures				
Increased noise levels	Specific noise reduction devices such as silencers and mufflers shall be installed as appropriate to site plant and equipment.	Additional cost for the purchase of noise reducing/screening devices. However, this is required in case there are residents in the vicinity of the project sites. There is a contingency budget allocated for up to 20 silencers and mufflers to be purchased, if required.	2,000 USD	40,000 USD
	The contractor should conduct employee and operator training to improve awareness of the need to minimize excessive noise in work practices through implementation of measures.	Training on structural and non-structural mitigation measures. Training for 90 participants for 2 days and 2 rounds	• rainer fees and training manual preparation = 6000 USD for 2 trainings •	42,000 USD

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
			ransport & subsistence allowance for trainees= 50 USD/day • rinting cost = USD 25 per trainee • enue and other expenses = 25 USD per day per trainee	
Air Quality				
Increase in dust levels at sensitive locations	Install dust gauges at locations identified for significant construction lay down and stockpiling areas.	A contingency of 12,000 USD is allocated for dust gauge procurement and installation, if required	-	12,000 USD
Increase in vehicle emissions (including odours and fumes)	Develop and implement an induction program for all site personnel, which include as a minimum an outline of the minimum requirements for environmental management relating to the site.	ESIA planning and implementation training to 90 participants from regional states, Woredas PCU staff and environment units staff. The training will be conducted in 2 round for 3 days	• Trainer fees and training manual preparation = 6000 USD for 2 rounds • Transport &	60,000 USD

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
			subsistence allowance for trainees= 50 USD/day • Printing cost = USD 25 per trainee • Venue and other expenses = 25 USD per day per trainee	
		Social Management		
Changes in land use leading to conflict	Carry out community consultation on the purpose and benefits of making changes to land use	Contingency budget of up to 39,000 USD has been allocated to conduct community consultation events.	-	39,000 USD
		Training on conflict resolution to be provided for 90 project staff (mainly project implementers) for 2 days	• Trainer fees and training manual preparation = 6000 USD • Transport & subsistence allowance for trainees= 50 USD/day • Printing cost = USD 25 per	22,000 USD

Environmental and Social Issue	Mitigation measures and control activity (and Source)	Estimate of measures (quantitative/qualitative)	Unit Cost	Total
			trainee • Venue and other expenses = 25 USD per day per trainee	
TOTAL				**496,400USD**

Annex 1. Delegation of Authority provided by the Environment Protection Authority to the Ministry of Water and Energy with regards to the approval or disapproval of the implementation of projects in the water and energy sector on the basis of the review of an environment impact assessment document[3]

Article 1

Responsibilities of the Ministry of Water and Energy

1. The MoWE, in accordance with the list annexed to this document, should examine the impacts of the implementation of new development projects or substantial expansion or change of existing projects or re-development of discontinued projects and must approve or disapprove with or without preconditions and monitor the implementation of the project.
2. The MoWE must ascertain that the project proponent has not engaged any staff from the ministry or from federal or regional environment agencies and the ministry must require a signed testimony from the proponent.
3. In case very serious unforeseen issues arise after the submission of the EIA report, the MoWE must require for the EIA to be revised or redone, in order for the ministry to examine the new situation.
4. The MoWE must submit copies of EIA documents of development projects to the EPA at least every quarter.
5. The MoWE must ensure that its environmental unit has adequate capacity to implement its delegation of authority.
6. In order to accomplish the tasks under this delegation of authority the MoWE may confer with the EPA as required.

[3] Unofficial translation from the Amharic Version, Gedion A. 2016

Article 2 Responsibilities of the EPA

1. In order for the MoWE to be able conduct impact studies, review of EIAs and make decisions, the EPA will prepare and provide environmental laws, standards and other necessary documents
2. The EPA will provide training and capacity building on review of EIAs to the environment unit staff of the MoWE.
3. In case the EPA considers that the decision taken by the MoWE on the EIA document is erroneous the EPA has the right to correct the error.
4. In case a project proponent is not satisfied with the decision of the MoWE on the EIA, the proponent will first address his dissatisfaction to the MoWE officials and in case the issue is not resolved the proponent can submit his case to the EPA. The EPA, after receiving the proponent's written complaint, will provide its decision to both the MoWE and the proponent within 15 days.
5. The EPA may take measures to enhance the implementation of this delegation of authority
6. The EPA may improve the list of development projects annexed to the delegation of Authority.

This delegation of authority will be effective on the date it is signed by the EPA and MoWE

_____ _____

Environment Protection Authority Ministry of Water and Energy

List of projects that fall under the water and energy sector as per the EIA proclamation number 299/1995

1. Dam Construction
    a. Dams over 15 meter height
    b. Reservoir size over 3 million cubic meter
    c. Hydropower over 10MW
2. Irrigation development-Over 3000 hectares

3. Petroleum and energy sector projects

4.Storage tanks 25,000liters and over

5.Any water and energy project within 300 meters of an environmentally sensitive area.

Annex 2: Stakeholder Consultation Report and the Stakeholders Engagement Plan

Stakeholder Consultation Report and the Stakeholders Engagement Plan

Table of Content

List of Plates

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Acronyms

AGP:	Agricultural Growth Program
CRGE:	Climate Resilient Green Economy
MoA:	Ministry of Agriculture
MSE:	Micro and Small Scale Enterprises
NGO:	Non-Governmental Organization
PA:	Project Area
SLMP:	Sustainable Land Management Program
WOFED:	Woreda Finance and Economic Development Office

Background

The project, "Responding to The Increasing Risk of Drought: Building Gender-Responsive Resilience of the Most Vulnerable Communities" is designed through collaboration of three Ministries, namely the Ministry of Finance and Economic Cooperation (MOFEC), Ministry of Agriculture and Natural Resource (MOANR) and Ministry of Water, Irrigation and Electricity (MOWIE). The project design principles include, among other, water centered, drought response and resilience as a major climate change hazard and targeting representative and vulnerable communities in drought hotspot geographic areas of Ethiopia. To ensure fully participation of stakeholders concerned, several stakeholder's consultations were facilitated during the design process of the project at various tiers of administration-national, district/woreda and kebele levels. At national levels, consultations were facilitated at sectoral levels, while sub-national consultations were facilitated in the 22 target woredas and several kebeles therein. This summary report therefore, takes account of the content of the consultation events and major understanding thereof. The proposed project mainly targets rural communities living in 22 project areas located in nine administrative regions. Despite the existence of high surface and ground water potential for agricultural development, selected project areas were exposed to frequent drought and environmental degradation. The proposed project integrates agriculture, forestry and water resource management to enable the most vulnerable communities to adapt to more frequent drought as well as introduce proven technologies and necessary infrastructure together with innovative methods that will contribute to the preservation of the ecosystem. To achieve the objectives and ensure the sustainability of the proposed project outcomes, it involves active engagement of a large number of stakeholders. Thus, this project was designed with constant community consultation and engagement.

The Process

At the onset of the project formulation, key stakeholders were identified from among government agencies, civil societies, non-government organizations, academic institutions, research centers and the private sector. Details on stakeholder consultation and engagement at federal level and summaries at local level were provided in the main proposal. This report provides more detail information on the facilitation and stakeholder consultation made at local level.

On the first mission to project areas, four teams from CRGE facility held a series of consultations with identified key stakeholders between March and mid-April 2016. It aimed to create awareness on project objectives, identify specific project implementing Kebele administration, gather baseline information and ascertain willingness and capability to perform activities required and bring about the required changes.

The second round of consultation was made between mid-April- May 2016 and it mainly focused on the development of water supply scheme; assessing problems, needs, and gaps. The teams conducted technical and social surveys to investigate, prioritize and recommend the most sustainable, cost effective, environmentally and user friendly technologies as well made an appraisal of proposals, technical findings and suggested interventions together with beneficiary communities and key institutions.

Representatives of beneficiary communities include elders, women, youth, farmers, representatives of cooperative and woman association as well as local leaders. Grass root level development agents, water and irrigation experts, extension workers, and experts assigned from Woreda Office of Agricultural and Office of Water Resources were also actively engaged in the process.

Brief Overview of Stakeholders[4]

Office of Water resources, Energy and Irrigation is authorized, among others, to oversee the development of water supply at Woreda level. The Office of Agriculture and Rural Development coordinates the integrated agriculture and natural resource development activities, including rehabilitation of degraded lands. At KA level, the office also has a minimum of three development agents, which are responsible for day-to-day follow-ups of the agriculture, livestock and natural resource based activities.

Food Security and Disaster Prevention and Preparedness Office oversees the overall organization and guidance towards the functioning of disaster risk management. Office of Education has the mandate to run formal and non-formal education programmes. Provision of primary health care (health posts and health centers) among others, is the main responsibility of the Office of Health.

The task of coordinating, organizing and empowering Micro and Small Enterprises (MSEs) is the responsibility of the Office of MSE. The office organizes interested groups in different production and processing works and provides trainings in business and related field. It also facilitates the acquisition of production sites, market outlets and financial assistance from micro credit organizations.

Woreda Finance and Economic Development Office (WoFED) is responsible for budget planning, consolidation of sector offices' work plans and collecting revenue mainly in the form of taxes, among others. Micro-credit institutions are the responsible entities for allocation of the necessary credits (with low interest rates) for approved private and MSEs, it also evaluate performances.

[4]There might be minor variation in structures and naming of government organization from region to region.

National Stakeholders Consultation by MOFEC

A national consultation was held on 15 June 2016 at Elily International Hotel, Addis Ababa, Ethiopia. This consultation event was attended by over 50 participants from cross-section of stakeholders. The participants represented federal and regional government, development partners, civil society organizations, academia and private sector stakeholders. This event was a culmination of series of consultation and participatory conversation facilitated over the design period beginning from kebele/communities, then woreda and finally at sector levels. Moreover, several one- on -one consultations were conducted with key institutions and development partners over a year and half design period.

During the national consultation event, it was explained that the event is aimed at providing a platform for providing input on the following issues:

- If there any benefits from the proposed project that stakeholders believe may be missing from, or could be better explained in, the proposal?
- Ways by which the sustainability of the proposed project could be enhanced?
- If there are any contributions that participating organization could make to the implementation of the project that have not been adequately described in the proposal?
- Are there any other ways in which you think this proposal could be enhanced?

As the consultation workshop was a culmination of series of consultation facilitated in association with this project design, full account of the previous events as well as content of the project proposal was presented. Following this, participants responded to wide ranging issues which can be summarized as below:

- There was considerable interest in the landscape approach of the proposal and participants requested further elaboration with regard to the woreda selection criteria. It was explained that woreda selection was done by sector ministries in close collaboration with regional bureaus, based on clear criteria, mainly vulnerability to climate change induced drought (the most vulnerable);
- How will you operationalize the project interventions alongside with other programmes? How have you addressed the concept of additionally with clearly defined indicators? It was explained that during proposal preparation maximum care was taken to avoid duplication of efforts and ensure complementarity of the proposed interventions with the on-going programmes and projects. Additionally as opposed to traditional development intervention was also emphasized in the project preparation, which is developing resilience capacity of the communities to ever increasing drought under the impact of CC.

- The need for engaging the National Disaster Risk Management Commission (NDRMC) in the implementation of the project and using disaster risk mitigation adaptation plan for the implementation of the project. It was responded that the NDRMC is fully engaged through the advisor to the commissioner, while the proposed interventions are not focusing on emergency response but on climate change induced drought risk reduction.
- Is there any exit strategy in place for the project? It was said that as the proposed intervention for the GCF is builds on the government programme, the government will make sure that interventions are sustainable, mainly through absorbing into regular programmes of government;
- Participants emphasized the need for developing metrological stations and analyzing climate information as an effective response strategy. It was explained that EWS is part of the programme interventions and one of the feasibility study was explicitly on in the climate and early warning information.
- The need for setting baseline for emission level. It was said that the focus of the proposal is adaptation with mitigation co-benefit and not a climate change mitigation as such; as a result, it will not be primary focus.
- There is also a need for the project to also focus on the renewable energy sector. It was explained that the project under review has considered renewable energy, primarily for the irrigation and water supply (i.e. productive uses);
- How does the project management structure take into account the co-financing contributions? It was said that there is co-financing from the government and the project management structure can also be used to replicate the support to the other woredas by other development partners.

National Consultation by the Executing Entities

Sectoral consultation at national level was facilitated by Ministry of Agriculture and Natural Resources (MOANR) on June 27, 2016 at the Ethiopian Red Cross Association Training center, Addis Ababa. The consultation was focused on the agriculture and natural resource related interventions. National and regional state stakeholders were represented in both consultation workshops. The main consultation objectives were to seek stakeholder's views and input regarding the project formulation both in the context of design, type and scope of selected interventions, geographic and beneficiary targeting, conformity with polices and strategies including, among other the growth and transformation plan, sectoral CRGE commitments, environmental and social safeguards and stakeholder's engagements. Detailed discussion of the meeting is presented as annex 4. **Local Level Stakeholder Consultation**

Regional and Zonal Meetings

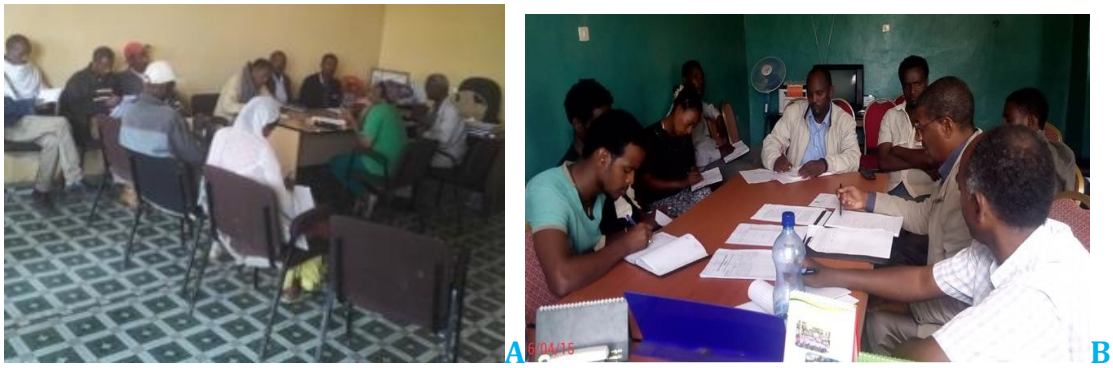
In these meetings, team members have explained project objectives, gave details on components of the proposal and discussed issues raised. Stakeholders were also informed on criterion used in the selections of project Woredas; conditions such as highest frequency of drought, growing vulnerability to climate change induced drought, and availability of high ground and surface water potential, among others.

Woreda Level Meetings

At Woreda level meetings, key local stakeholders such as representatives of the Food Security and Disaster Prevention Desk, the Agricultural and Rural Development Coordination Office, the Office of Health, the Office of Education, the Office of Finance and Economic Development, the Office of Water resources Development and Small Enterprise Development and Micro-financing institutes were present. After providing detail descriptions on the proposed project, discussion were made on topics raised from

Plate 1: Describing project objectives to local stakeholders at Amhara (A) and Oromia (B)

participants and explanations were provided for questions raised (plate 1). Detail of the issues presented during the meeting is available in annex 5.



A B

Kebele Level Consultations

Similarly, field visits were also made to selected project KAs, the smallest unit where proposed project activities shall be carried out. General assessment of the bio-physical characteristics was done. Furthermore, a field visit was organized to see ongoing efforts to improve farmer's resilience to climate change related hazards and resource management activities (Plate 2 and 3).

Plate 2: Small Irrigated plot of land at Afar project area

Plate 3: Artisanal well at Gewane

Plate 4: Consultation with representatives of project beneficiary communities at one PA

CRGE team members have also exchanged information with members of beneficiary communities and local authorities (Plate 4).

Plate 5: Grass root level stakeholder consultations at Amhara and Hareri

Participatory Survey of Water Supply Systems

In April 2016, a second group (team) composed of subject-matter specialists have visited project areas and made survey of water supply system. Prior to their field work, teams have made discussions with beneficiary communities and other stakeholders (Plate 5). The topics for discussion included safe drinking water supply, irrigation water sources, problems on water schemes management, operation and maintenance, identification of alternatives water sources, hygiene and sanitation and community's future needs.

Participants emphasized the need to accommodate community preferences, enhancing

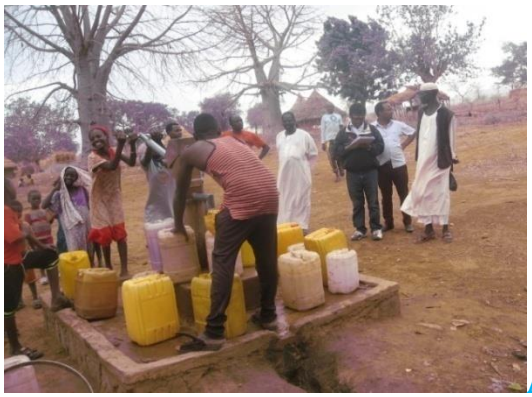
community involvement and commitment to ensure ownership and provision of continued support during and after project life span. They also stressed that proper community engagement from outset to help ensure the success, viability, and sustainability of infrastructures. Lessons learnt from previous projects such as the third Water Supply and Sanitation Project was also shared. Particular need for application sought include empowering women as caretakers of built infrastructures.

Despite the absence of explanatory documents in some project areas about existing water sources and construction history, community members provided guidance for marking location of water supply sources, detail information on history, seasonal fluctuations, year of construction, etc. and were able to fill data gap and minimize survey time (Plate 6). Other available data including water quality analysis results were obtained from water bureaus.

Plate 3: Survey of water supply sources at Zeway Dugda PA

Plate 4: Survey of water sources at BGRS (A), and Gambella (C) and Afar (D)

Overall, through the active involvement of target communities and other stakeholders, the existing domestic and irrigation water supply systems have been visited and the operation, maintenance and management practices in all project areas have been noted (Plate 7). Access and functionality of existing water supply schemes, type of water sources available and types of technologies being used and information on existing infrastructure in the Woreda and particularly in selected project areas were also gathered. Furthermore, major gaps and challenges as well as suggested recommendations were collated.



A

B

Outcomes

Selection of Project Area (PA)

Based on the information provided and taking into account criterion developed for selection of project areas, stakeholders have identified eight Kebele Administrative Areas for the implementation of the project activities and pledged to allocate some 800 hectares of communal land for project implementation.

Selection criterion include: frequency of drought, vulnerability to climate change – induced drought, food insecurity hotspots, proximity to town center, proximity to roads, high level of environmental degradation, and with high ground and surface water potential. The selection also focused on the need for willingness and the commitment level apart from existence of well-established institutions. Furthermore, selected areas should also be outside other PAs, biodiversity hotspots, natural and historical heritage sites, and ongoing interventions, such as, SLMP and AGP.

Baseline information

Baseline information on project Woreda and proposed implementation Kebele Administration was provided by Woreda Bureaus. These include data and information on demography, livelihood, crop and livestock production, marketing, land use and land cover, frequency of drought/flood hazards and the number of victims, access to social

services, and technology profiles. Information on other stakeholders (such as NGOs and donors) intervention and their mandates; and the focus of research and training institutes were also obtained.

Through stakeholder consultation held at each selected project area (Kebele Administration/KA), the types of relevant interventions required for a specific KA were identified, and details provided on recommendations, such as, type of crop and tree seedlings to raise, size of irrigation schemes, identifying potential partners and co- as well as prioritizing the interventions that are required.

Impact on Sustainability

Planned activities are integral part of their organizational missions and most accord high priority to the intended interventions. Stakeholders have the organizational structure and institutional capacity to provide the required support and scale up project achievements to other KAs. This will ensure proper implementation and sustainability of proposed interventions during and after the project period.

The stakeholder consultation has strengthened the ownership of the project idea by the local communities (beneficiaries) and other stakeholders. Furthermore by involving the stakeholders directly in the survey and appraisal of the proposal, the (technical) findings and suggested interventions have been fine-tuned to align the project activities with community needs. In addition, the consultation has raised awareness about the current situation and contributed for a better understanding of the project interventions which resulted in as strengthened willingness for commitment from all.

Public/Stakeholders consultation on the Environmental and Social Management Plan

Introduction

As per the requirements of the funding entity – GCF, and the existing mandatory requirements of the implementing entity –the Government of Ethiopia, a detailed environmental and social management framework and plan was developed for the project.

In due recognition of the requirements stipulated in environmental and social safeguards for consultation, a series of stakeholders'/public consultation and focus group discussions were carried out in project Woredas and Kebeles to discuss on the:

- Activities of the project;
- Identified potential environmental and social benefits and impacts of the project;
- Additional or uncovered environmental ad social concerns that the public/stakeholders had;
- Identified/proposed mitigation measures for alleviating potential environmental and social associated to the project;

These consultations were carried out as part of the project design and development process that was carried out in April and May 2016.

A list of the participants of these consultations is found enclosed.

The Consultation Process

The consultation on Environmental and Social Management Plan was facilitated by the CRGE Facility team, which was led by Environmental and Social Safeguards expert. Consultations in all woredas and kebeles started with a brief presentation of the project, followed by a detailed presentation of the environmental and social management plan of the project.

The consultation process was participatory and communities raised their main concerns, which were in all localities social in nature. These included:

- Concerns related to reduced access to land for farming and for other purposes;
- Concerns related to resettlement of communities from the area;
- Concerns related to access to benefits resulting from project interventions, which may result in conflict amongst community members.

Reflection from the project Team

The project team recognised the concerns of raised by the communities and their representatives and responded to the main concerns, clarifying that:

- The project will be use of communal and marginal land for implementing the interventions;
- As a result, the project will also expropriate farmlands of individual farmers and will not relocate nor resettle farmers,
- Similarly the project team also explained as a mitigation the preparation and signing of a bylaw on access to benefit sharing within the community will be mandatory in the contact of the project

Conclusion

The consultations were concluded with a positive feedback from the community to go ahead with the project, considering that there were no implications related to resettlement, reduced access to land and access to benefit sharing.

Stakeholders Engagement Plan

Continuous stakeholders' engagement is crucial for the successful delivery of the project results, enhances ownership and ensures sustainability of the project and speeds up scale of the project. The relevant stakeholders will engage in the execution of the project in different forms. Details of the stakeholders' engagement plan for the project is available in annex 6.

Annex 1: List of participants: Woreda level consultation

No.	Name	Project Area	Organization	Title	Telephone no.
1	Etana Gebyoo	Zeway-Dugda	Agriculture	Office Head	0911-364615
2	Tibeso HIdato	Zeway-Dugda	Agriculture	Vice head	0910-011003
3	Hussein Amman	Zeway-Dugda	Agriculture	Agronomy expert	0910-953480
4	Kedisa Berisoo	Zeway-Dugda	Road Authority	Office Head	0913-307893
5	Tsegaye Dabi	Zeway-Dugda	Livestock and fishery resource development	Office Head	0913-283661
6	Nura Sefewo	Zeway-Dugda	Small Enterprise Organization	Office Head	0913-958790
7	Jemal Abas	Zeway-Dugda	Finance and Economic Development	Office Head	0911-834608
8	Abiti Garisse	Zeway-Dugda	Micro finance	Office Head	0910-953691
9	Awer Jawi	Zeway-Dugda	DPPO	Office Head	0910-766890
10	Mifta Liena	Zeway-Dugda	Finance and Economic Development	Officer	0913-331961
11	Jamaa Dhugoa	Zeway-Dugda	Jallisi	Team leader	0934-957766
12	Mohamed-Nur Kedir	Zeway-Dugda	Livestock	Expert	0912-812947
13	Kemal Bonso	Zeway-Dugda	Road Authority	Expert	0913-635578
14	Abera Jemaye	Zeway-Dugda	Agriculture	Process owner	0911-080974
15	Daniel Gemedi	Zeway-Dugda	Education	Team leader	0911-542632
16	Sisay Gemechu	Zeway-Dugda	Rural land	Team leader	0921-195868

No.	Name	Project Area	Organization	Title	Telephone no.
1	Gargalo Wario	Yabelo			0916-598137
2	Daba Gufu	Yabelo	PDO		0911-969200
3	Abdela Mustefa	Yabelo	Health Office		0913-147577
4	Tefera Arega	Yabelo			0911-771957
5	Mekonen Abebe	Yabelo	Jallisi		0911-851828
6	Taafari Wonji	Yabelo	PDO		0913-419852
7	Mitiku tadesse	Yabelo			0910-015663
8	Dida Jarso	Yabelo	Finance and Economic Development		0916-337091
9	Mekdes Taye	Yabelo	Water, Mines and Energy		0921-260490
10	Gezzhegn Tadesse	Yabelo	DPPO		0910-926589
11	Adane Tadesse	Yabelo	Education Office		0910-476805
12	Hussein Kebede	Adami-tulu J.K.	Agriculture	Head	0949-788525
13	Shumi Geleto	Adami-tulu J.K.	Rural land	Head	0916-314328
15	Mohamed Daka	Adami-tulu J.K.	Water and Mine	Team leader	0910-223135
16	Halku Kufa	Adami-tulu J.K.	Health	D. Head	0911-976671
17	Ammano Dalu	Adami-tulu J.K.	Agriculture	Agronomist	0920-179195
18	Jemal Deraro	Adami-tulu J.K.	Education	Team leader	0911-903305
19	Qassim Jebesa	Adami-tulu J.K.	Rural land		0916-371297
20	Tahir Hedeto	Adami-tulu	Agriculture		0934-

No.	Name	Project Area	Organization	Title	Telephone no.
		J.K.			899650
21	Girma Alemu	Adami-tulu J.K.	WOFED		0913-238430
22	Kufa Abu	Adami-tulu J.K.	Livestock and Fishery	Head	0921-470878
23	Daniel Ashi	Adami-tulu J.K.	Irrigation	Representative	0913-944390
24	Gemechi Jambo	Adami-tulu J.K.		Expert	0923-448394
25	Nuredin Abdela	Biyo Awale	BoA		0911-169960
26	Tadele Beyene	Biyo Awale	BoFED		0913-915950
27	Abdulsemed Sano	Biyo Awale	Agriculture		0911-921933
28	Getnet	Biyo Awale	Agriculture		0915-944603
29	Hassen Abdela	Biyo Awale	Agriculture		0915-766585
30	Umer	Biyo Awale			0915-034470

Annex 2: List of Participants: KA level Stakeholder Consultation

No	Nameof representative	Responsibility	ProjectArea	ProjectKA	Telephone No
1	Ato, Gelana Adesa	Woreda Assigned Representative/Water Resource BureauHead	Meiso	8 Kebeles	910412755
2	Ato.RobaYonis	Representative/ Woreda Water Resource Bureau	Meiso	8 Kebeles	921154770
3	Ato. AbdurmanKebelo	Woreda Assigned Representative/ Irrigation& agriculture Bureau	Meiso	8 Kebeles	913176944
4	Ato. Adem Mohammed Bilal	Chairman of the Kebele	Meiso	Waldaajajabaa	
5	Ato. MohammedAbdela Kure	Deputy Chairman of the Kebele	Meiso	Aananno	927853877
6	W/o Fatiya Keflu	Women Affiar	Meiso	BuriArba	
7	Ato. Abdela Ebro Saido	Elder	Meiso	DireaQaluu	
8	W/oMesiroHaseen Hussen	Women associationof the Kebele	Meiso	DireaQaluu	
9	AtoTsegnetSimenw Siyume	Kebele AdministratorTeam member	Meiso	DenedaHunde Misoma	
10	Ato. YosufhAhmed Roba	Kebele community representative	Meiso	DenedaHunde Misoma	
11	Ebriam Abduli	Community police	Meiso	DenedaHunde Misoma	
12	Ato. Moham Jemal Ahmed	Farmer	Meiso	Haramaro Dima	
13	Ato. AbdelaAdemHuseman	Community police	Meiso	HaramaroDima	
14	Ato. Bedri Ahmed Ebriam	Kebele AdministratorTeam member	Meiso	Haramaro Dima	
15	Ato AbdiAdem	Kebele community member	Meiso	Haramaro Dima	
16	Ato. Abdela Huseman	Elder	Meiso	Hameti MattaDima	
17	W/oMomina Kasime	Women association	Meiso	Hameti MattaDima	
18	Ato. Zeneba Ahmed Alo	Community police	Meiso	Hameti MattaDima	
19	Ato. AbdelaAdemWanjora	Elder	Meiso	ItisaRooro	
20	Ato. MohammedAbdula Ali	Elder	Meiso	Itisa Rooro	
21	W/t Etenish Wakijera	Teacher	Meiso	Itisa Rooro	
22	Ato. Kedir Adena	Teacher	Meiso	Itisa Rooro	
23	Ato. Jemal Adem	Farmer	Meiso	Itisa Rooro	
24	Ato. Semir Abdi	Representative from Harari Water Resource bureau	Sofi	7 Kebeles	915740963
25	Ato. Adem A/keyum	Representativefrom Hareri Agriculture &Irrigation bureau	Sofi	7 Kebeles	963858220
26	W/oMeruDawe	V.chairmanofsofiKebele	Sofi	Sofi	
27.	Ato.Tagude Ahmed	Farmer	Sofi	Sofi	
28	Ato. Zeku Ahmed	Farmer	Sofi	Sofi	
29	Ato. Kelifa Ahmed	Agreculture expert	Sofi	Sofi	
30	Ato. Abdus Abreham	Farmer	Sofi	Harawe	
31	Ato.AbadsMohammed	Kebele chairman member	Sofi	Harawe	
32	W/oAjera Ibriam	Kebele member	Sofi	Harawe	

33	W/tZewdnishMengesha	Extension	Sofi	Harawe	
34	Ato.WorkuMulugeta	D.A	Sofi	Harawe	
35	Ato. Tofik Hamla	Vice chairman	Sofi	Burka	
36	Ato. AbdiEndris	Communitydevelophead	Sofi	Burka	
37	Sajin.Ali Ebro	Police	Sofi	Burka	
38	Ato. Beker Ahmed	Farmer	Sofi	Burka	

No	Nameof representative	Responsibility	ProjectArea	ProjectKA	Telephone No
39	W/o.Amdeya Abdela	Women association	Sofi	Burka	
40	Ato. MohammedAbdule	Farmer	Sofi	Awuberkele	
41	Ato, Ibriam Zekary	Kebele administration	Sofi	Awuberkele	
42	Ato. Aliyu Jibre	Teacher	Sofi	Awuberkele	
43	W/oEasrom Humed	Kebele member	Sofi	Awuberkele	
44	Ato. AdelaTekalgh	D.A	Sofi	Awuberkele	
45	Ato.MusbaAbduli	Farmer	Sofi	Germeshua	
46	W/oNijuma Hasen	Kebele member	Sofi	Germeshua	
47	Ato. Afende Ahmed	Farmer	Sofi	Germeshua	
48	Ato. AbdiHassen	D.A	Sofi	Germeshua	
49	Ato. AhmedAbdu	Chairman	Sofi	Awumer	
50	W/oEndia Ismile	KebeleMember	Sofi	Awumer	
51	Ato. Ibriam Yesufh	Farmer	Sofi	Awumer	
52	Ato. EliasTofik	Irrigationdev.expert	Sofi	Awumer	
53	W/oArdo Ebro	Kebele member	Sofi	Awumer	
54	Ato.Yuha Aji	Farmer	Sofi	Kele	
55	Ato. Jemal Yuha	Farmer	Sofi	Kele	
56	Ato. Adem Saido	Farmer	Sofi	Kele	
57	Ato. Abdi Ahmed	Farmer	Sofi	Kele	
58	Ato. EliasHassen	D.A	Sofi	Kele	
59	Ato. Getnet Tadesse	Representative from Diredawa Aggreculture, Irrigation,Water,Mineral & Energy Bureau	BiyoAwale	8 Kebeles	915444603
60	Ato. Abdulselm Ahmed Huseman	Representative from Diredawa Agriculture, Irrigation,Water,Mineral & Energy Bureau	Biyo-Awale	8 Kebeles	915428334
61	Ato. Huseman Beker Ahmed	Farmer	Biyo-Awale	Adada	
62	Ato.JemalMussaAdem	Farmer	Biyo-Awale	Adada	
63	W/oFatumaHassen	Kebele member	Biyo-Awale	Adada	
64	W/oSofiaAhmedMussa	Kebele member	Biyo-Awale	Adada	
65	Ato. YayaAhmed	Farmer	Biyo-Awale	Adada	
66	Ato. Kedire Aliyu	Youth/farmer	Biyo-Awale	Adada	
67	Ato.HabtamuGetachew	D.A	Biyo-Awale	Adada	915762566
68	Ato. Ibriam Huri	Farmer	Biyo-Awale	Biyo-Awale	
69	Ato. MohammedkasimRoba	Farmer	Biyo-Awale	Biyo-Awale	
70	W/oAmina Bushra	Women association	Biyo-Awale	Biyo-Awale	
71	W/oRobeya Abdroman	Womenassociation	Biyo-Awale	Biyo-Awale	
72	Ato. ShemshedineAhmed Ibro	Youth/farmer	Biyo-Awale	Biyo-Awale	
73	Ato. Solomon Demele	DA	Biyo-Awale	Biyo-Awale	915013976
74	Ato. Abdulaziz Mohammed	Chairman	Biyo-Awale	Awale	
75	Ato. MohammedTeha	Kebele Member	Biyo-Awale	Awale	
76	Ato. Abase Humer	Kebele House of chairman	Biyo-Awale	Awale	

77	W/oMiftuYesuf	Kebele member	Biyo-Awale	Awale	
78	Ato. Abduroza Kebede	Teacher	Biyo-Awale	Awale	
79	W/oFatuma Maiso	Farmer/Womenassociation	Biyo-Awale	Awale	
80	Sajin.Ali Ahmed	Police	Biyo-Awale	Awale	

No	Nameof representative	Responsibility	ProjectArea	ProjectKA	Telephone No
81	Ato IsmileAdj	Chairman	Biyo-Awale	Bekehale	
83	Ato. Teha Ahmed	Farmer	Biyo-Awale	Bekehale	
84	Ato. Muktar Mussa	Farmer	Biyo-Awale	Bekehale	
85	W/o.Zehara Humer	Kebele member	Biyo-Awale	Bekehale	
86	Ato. Abdu Humed Nure	Youth/farmer	Biyo-Awale	Bekehale	
87	W/oShikuren Moha	Kebele member	Biyo-Awale	Bekehale	
88	Ato. Nasire Ahmed	Kebele manager	Biyo-Awale		915124145
89	Ato. Siraj Tehiro Abdosh	Elder/farmer	Biyo-Awale	Belewa	
90	Ato.Mohammed Abduselam	Chairman	Biyo-Awale	Belewa	
91	Ato. Abdi Ahmed Musa	Farmer	Biyo-Awale	Belewa	
92	W/o. SafiMohammed	Womenassociation	Biyo-Awale	Belewa	
93	Ato. Dine Usman	Manager	Biyo-Awale	Belewa	
94	Ato. Ismile Mohammed	Chairman	Biyo-Awale	Kortu	
95	Ato. MusaAbdela	Farmer	Biyo-Awale	Kortu	
96	W/o.SofiaMohammed	Women Association	Biyo-Awale	Kortu	
97	Ato. Abdela MohammedKaro	Farmer	Biyo-Awale	Kortu	
98	Ato.JebirMohammed	Farmer	Biyo-Awale	Kortu	
99	W/o.Zehara Amino	Women association	Biyo-Awale	Kortu	
100	Ato. Mohammedahmed	Chairman	Biyo-Awale	Kalicha	
101	W/oHindyaMussa	Women association	Biyo-Awale	Kalicha	
102	Ato. Humer Mohammed	Farmer	Biyo-Awale	Kalicha	
103	Ato. Ali Mohammed	Watersupply & Distribution	Biyo-Awale	Kalicha	
104	W/oSofe Owmer	KebeleMember	Biyo-Awale	Kalicha	
105	Ato. Abdureham Shek Abdela	V/Chairman	Biyo-Awale	Bishan-Bahe	
106	W/oHalima Musa	Women association	Biyo-Awale	Bishan-Bahe	
107	Ato. AbdiYoha	Farmer	Biyo-Awale	Bishan-Bahe	
108	Ato. Jemal HadenAbro	Farmer	Biyo-Awale	Bishan-Bahe	
109	W/oHalima Ibro	Women ass.chairman	Biyo-Awale	Bishan-Bahe	
110	Ato. MohammedMusa	DA	Biyo-Awale	Bishan-Bahe	
111	Ato. Tamerat Alemu Mamo	Representative from Gewane Woreda, agriculture,irrigation & LivestokExpert	Gewane	4 Kebeles	911917382
112	Ato. MohammedAbdela	Representative from Gewane Woreda,Water Resource Bureau	Gewane	4 Kebeles	912920094
113	Ato. FenoteMulugeta	Representative from Gewane Woreda,Administratio	Gewane	4Kebeles	924037257
114	Ato.MohammedAko	Member	Gewane	Bieda	

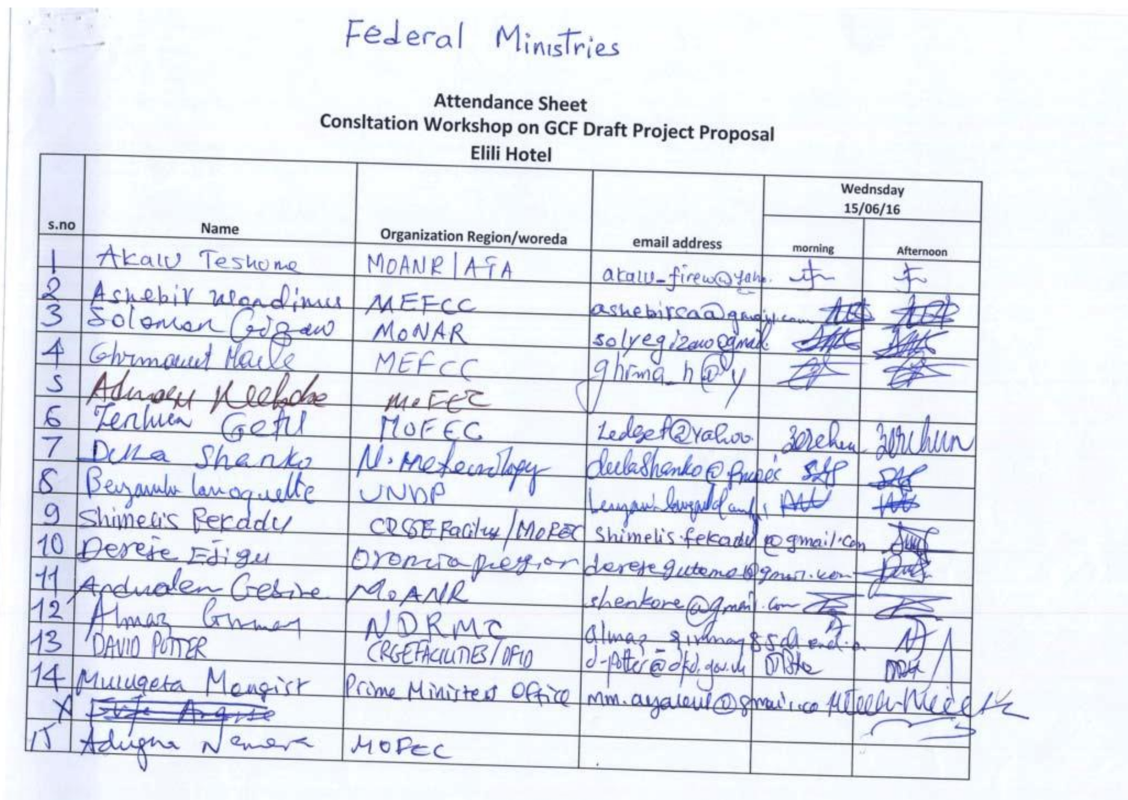
115	Ato.MohammedItmell	Farmer	Gewane	Bieda	
116	W/oAsyaAliMusa	WomenAssociation Chairman	Gewane	Bieda	
117	Ato.Humer Mohammed	farmer	Gewane	Bieda	
118	Ato. MohammedSubin	Manager	Gewane	Bieda	
119	Ato. Ali Hassen Musa	Kebele Member	Gewane	Meteka	
120	Ato. AbaSahle kame	Kebele House of chairman	Gewane	Meteka	
121	Ato. Mohamed Abdela Mulu	Kebele Member	Gewane	Meteka	
122	W/oWelino Mohammed Mussa	KebeleMember	Gewane	Meteka	
123	W/oAsiya shiko Abdela	Kebele Member	Gewane	Meteka	

No	Nameof representative	Responsibility	ProjectArea	ProjectKA	Telephone No
124	Ato. RobitaKedefo	V/Chairman	Gewane	Brieforo	
125	Ato. Abdela Shemb	Farmer	Gewane	Brieforo	977878288
126	Ato. Dawd Hare	Kebele member	Gewane	Brieforo	
127	Ato. HamedAli	Kebele member	Gewane	Brieforo	
128	Ato. HamedoHamid	Farmer	Gewane	Brieforo	
129	Ato. Abubeker Belahato	KebeleMember	Gewane	Urafita	
130	Ato. MohammedAli	KebeleChairmansecretary	Gewane	Urafita	
131	Ato. Anbesa Baye	Farmer	Gewane	Urafita	
132	Ato. MohammedAhmed	Elder	Gewane	Urafita	
133	W/oFatuma Sekbera	Kebele member	Gewane	Urafita	
134	Ato. Ferhan Mohammed Ahmed	Representative from Somali Region agriculture Irrigation	Jigjiga	8 Kebeles	910062250
135	Ato. NasirAhmed	Representative from Somali Region, WaterResource Bureau	Jigjiga	8 Kebeles	913529575
136	Ato. MohamuedYesuf	Representative from Somali Region,Finance&Econom	Jigjiga	8 Kebeles	913832288
137	Ato.MohammedAbdiYesuf	KebeleChairman	Jigjiga	Hadwe	915100111
138	Ato. Ali Humed Hassen	Elder	Jigjiga	Hadwe	
139	Ato. NasirAbdi	Elder	Jigjiga	Hadwe	
140	W/o. Ebo Ibriam	Female	Jigjiga	Hadwe	
141	Ato. Jemal Yesuf	Farmer	Jigjiga	Hadwe	
142	Ato. NemanMegag	KebeleChairman	Jigjiga	Beledka	915053525
143	Ato. AhmedIbe	V.Chairman/farmer	Jigjiga	Beledka	915206625
144	Ato. Moahmed Jeibe Hassen	Farmer	Jigjiga	Beledka	
145	W/oMerimaHassen	Member	Jigjiga	Beledka	
146	W/oAmina Ibriam	Member	Jigjiga	Beledka	
147	Ato. Hussen Shire	Farmer	Jigjiga	Beledka	
148	Ato. Faida Ahmed Fara	Member	Jigjiga	Beledka	
149	Ato AyalneYesuf	Health officer/farmer	Jigjiga	Haroresa	915050038
150	Ato. MohammedAhmed Aden	Chairman	Jigjiga	Haroresa	942896724
151	Ato. Hassen Owmer	Elder	Jigjiga	Haroresa	
152	Ato.MoahammedHuse man Gebro	Elder	Jigjiga	Haroresa	
153	W/oRoza Ahmed	Member	Jigjiga	Haroresa	
154	Ato. IeidSiyad	Youth	Jigjiga	Haroresa	
155	W/oHardoHuseman	Member	Jigjiga	Haroresa	
156	Ato. Abdigas Yesuf	Chairman	Jigjiga	Hartalibelay(Bondoda)	915781473
157	Ato Humer MohammedAbdi	V.chairman	Jigjiga	Hartalibelay(B ondoda)	
158	Ato. Hussen Ibriam	Member	Jigjiga	Hartalibelay(Bondoda)	

159	W/oSaroAbdi	Member	Jigjiga	Hartalibelay(Bondoda)	
160	Ato Musa Dahire	Member	Jigjiga	Hartalibelay(B ondoda)	
161	Ato. AhmedMohammed	Kebele	Jigjiga	Lemedega	

No	Nameof representative	Responsibility	ProjectArea	ProjectKA	Telephone No
162	Ato.Kedir Arta	Farmer	Jigjiga	Lemedega	
163	Ato. BeshirYesuf	SubKebelechairman	Jigjiga	Lemedega	
164	Ato. MohammedAliAbdi	Elder	Jigjiga	Lemedega	
165	Ato.HabibHaro	Youth/Farmer	Jigjiga	Lemedega	
166	Ato. MohammedLead	Kebele Administrationofficer	Jigjiga	Lemedega	948674626
167	Ato. MoahammedAden	Chairman	Jigjiga	Kortile	915116546
168	Ato.AbdiSheda	Elder/Farmer	Jigjiga	Kortile	
169	Ato. AhmedAbdli	Farmer	Jigjiga	Kortile	
170	Ato. Ali Ahmed	Elder	Jigjiga	Kortile	
171	Ato. SyadAbdi Aaleh	Youth/farmer	Jigjiga	Kortile	
172	Ato.HussenMohammedAfi	Chair man	Jigjiga	Shek-Abduselam	915775061
173	Ato. Abdu Nasire Ismile	Elder	Jigjiga	Shek-Abduselam	
174	Ato. Abduselam Moahmmed	Youth/Farmer	Jigjiga	Shek-Abduselam	
175	Ato. Abdi Ali Ismile	Chairman	Jigjiga	Shebeley	915229141
176	Ato. Abdi Ahmed Gulte	Elder/farmer	Jigjiga	Shebeley	
177	Ato. Alake Ahmed	Elder	Jigjiga	Shebeley	
178	Ato. AbdiAhmed	Admin.officer	Jigjiga	Shebeley	
179	Ato. Ferhan Mohammed Ahmed	Representative from Somali Region agriculture,Irrigation &Livestok Bureau	Kabribayah	8 Kebeles	910062250
180	Ato. NasirAhmed	Representative from Somali Region, WaterResource Bureau	Kabribayah	8 Kebeles	913529575
181	Ato. MohamuedYesuf	Representative from Somali Region,Finance&Economy	Kabribayah	8 Kebeles	913832288
182	Ato. AbdirazakAden Abdo	WoredaAdministration Chairman	Kabribayah	WoredaCenter	915752853
183	Ato. Abdi Mohammed Kalifa	Woreda Water Resource Bureau	Kabribayah	WoredaCenter	915053914
184	Ato. Abdui Beshire	Chairman	Kabribayah	Gillo	933345387
185	Ato. AbduabAli	Elder	Kabribayah	Gillo	
186	Ato. Nure Abdi Awashen	Elder	Kabribayah	Gillo	
187	W/o.Hoden Abdi Awel	Member	Kabribayah	Gillo	
188	Ato. AhmedHassen	Farmer	Kabribayah	Gillo	
189	Ato. Fesile Mohammed Ali	V.Chairman	Kabribayah	Guyow	915784276
190	Ato. Abdi HumerAli	Elder	Kabribayah	Guyow	
191	Ato. Kedir Ali Mohad	Elder	Kabribayah	Guyow	

192	W/oFatuma Jeima	Member	Kabribayah	Guyow	
193	W/oMerimaAhmedHibe	Member	Kabribayah	Guyow	
194	Ato. Abdi Mohammed	Member	Kabribayah	Guyow	
195	Ato. Shaf Hassen Gure	Chairman	Kabribayah	Deneba	915104080
196	Ato. Yesuf Mohammed Abduli	Peacekeeping officer	Kabribayah	Deneba	
197	Ato. AddurhamMohammed Humer	Member	Kabribayah	Deneba	
198	Ato. Ferhan Humed Hassen	Farmer	Kabribayah	Deneba	
199	Sajen Ahmed Mohammed	Farmer	Kabribayah	Deneba	



Federal Ministries

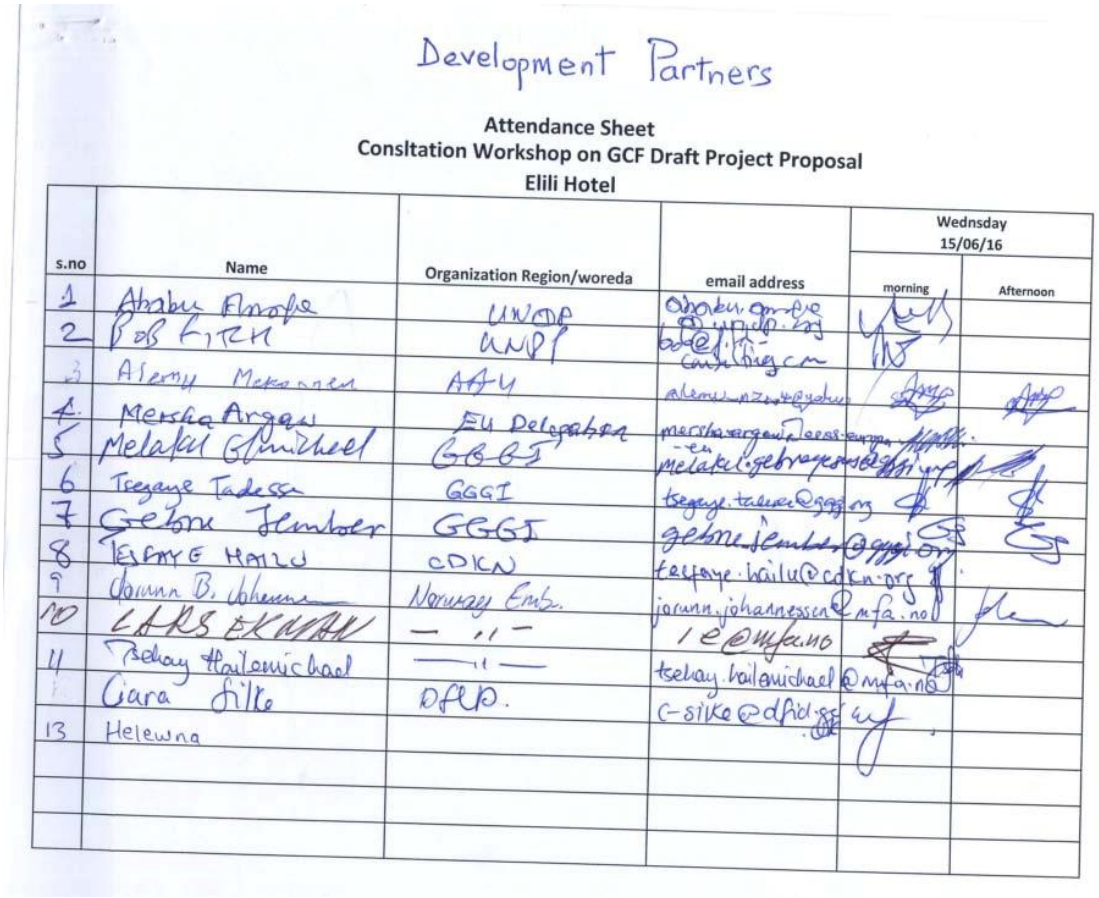
Attendance Sheet
Consltation Workshop on GCF Draft Project Proposal
Elili Hotel

s.no	Name	Organization Region/woreda	email address	Wednsday 15/06/16	
				morning	Afternoon
1	Akalu Teshome	MOANR/AFA	akalu_firew@yah.		
2	Ashebir Wondimu	MEFCC	ashebirsa@gmail.com		
3	Solomon Gizaw	MONAR	solyegizaw@gmail		
4	Ghrmawit Haile	MEFCC	ghrma_h@y		
5	Adunagn Kebede	MoFEC			
6	Zerihun Getu	MOFEC	Zedget@yahoo	Zerihun	Zerihun
7	Dula Shanko	N. Meteorology	dulaShanko@		
8	Benjamin Lamoquelle	UNDP			
9	Shimelis Fekadu	CRGE Facility/MOFEC	shimelis.fekadu@gmail.com		
10	Dereje Edigu	Oromia Region	derejegutema@gmail.com		
11	Andualem Gebire	MoANR	shenkore@gmail.com		
12	Almaz Girmay	NDRMC	almaz_girmay		
13	DAVID POTTER	CRGE FACILITIES/DFID	d-potter@dfid.gov.uk		
14	Mulugeta Mengist	Prime Minister Office	mm.ayalew@gmail.co		
X	~~[illegible]~~				
15	Adugna Nemera	MOFEC			

Development Partners

Attendance Sheet
Consltation Workshop on GCF Draft Project Proposal
Elili Hotel

s.no	Name	Organization Region/woreda	email address	Wednsday 15/06/16	
				morning	Afternoon
1	Ababu Anage	UNDP	ababu.anage@undp.org	[signature]	
2	Bob Fitch	UNDP	bob@[illegible]consulting.com	[signature]	
3	Alemu Mekonnen	AAU	alemu.mekonnen@yahoo	[signature]	[signature]
4.	Mersha Argaw	EU Delegation	mersha.argaw@eeas.europa.eu	[signature]	
5	Melaku G/michael	GGGI	melaku.gebregeorgis@gggi.org	[signature]	[signature]
6	Tsegaye Tadesse	GGGI	tsegaye.tadesse@gggi.org	[signature]	[signature]
7	Gebru Jember	GGGI	gebru.jember@gggi.org	[signature]	[signature]
8	TESFAYE HAILU	CDKN	tesfaye.hailu@cdkn.org	[signature]	
9	Jorunn B. Johannessen	Norway Emb.	jorunn.johannessen@mfa.no	[signature]	[signature]
10	LARS EKMAN	— " —	le@mfa.no	[signature]	
11	Tsehay Hailemichael	— " —	tsehay.hailemichael@mfa.no	[signature]	
[illegible]	Ciara Silke	DfID.	c-silke@dfid.gov.uk	[signature]	
13	Helewna				



Development Partners

Attendance Sheet
Consltation Workshop on GCF Draft Project Proposal
Elili Hotel

s.no	Name	Organization Region/woreda	email address	Wednsday 15/06/16	
				morning	Afternoon
1	Abebu Amofie	UNDP			
2	Bob Fitch	UNDP			
3	Alemu Mekonnen	AAU			
4.	Mersha Argaw	EU Delegation			
5	Melaku Gebreyesus	GGGI			
6	Tsegaye Tadesse	GGGI			
7	Gebre Jember	GGGI			
8	Tesfaye Hailu	CDKN			
9	Jorunn B. Johannessen	Norway Emb.			
10	LARS EKMAN	— " —			
11	Tsehay Hailemichael	— " —			
12	Ciara Silke	DFID.			
13	Helewna				

Annex 3- Stakeholders Consultations organized by the Executing Entities

The consultation by MOANR, were structured around key thematic issues - Agriculture sector program proposal components: building on past lessons; Integrated Watershed Management (IWM); Crop productivity and Efficiency; Livestock productivity and Efficiency; Disaster risk management; Realizing and Applying Research Experience into Program Areas; Biodiversity; and System Development (M and E, MRV, Capacity building).

Figure 1 partial view of consultation workshop

The consultation proceed was facilitated both in plenary and syndicate group discussions. Some of the key issues discussed and understanding established, among other, includes:

Participant emphasized the need of integration of project activities in the Growth and Transformation Plan (GTP) and reporting mechanism. In this regard, it was recommended that every project activities to be aligned with CRGE and GTP goals and as such Output/outcome level indicators should be refined; and need to develop M&E tools, as such there is a need support and follow up.

Addressing the necessary structure and capacity at the woreda level- In this regard an immediate solution suggested is to assign M&E focal persons at woreda level to facilitate M&E work as well as to facilitate CRGE activities/projects. It is also suggested that in the medium term, there is a need for establishment of CRGE unit at woreda level.

With regard to DRM/EWS, it was recommended that to double check with thereality on the ground and the baseline assumption in the proposal. For instance, there is a need to include alternative livelihoods options, in addition of agricultural insurance. Moreover, to address the necessary structure and capacity at the local level, there need for additional capacity support, including recruitment of TAs and in doing so there is a need to consider enter-regional variations and nature of the components.

With regard to **NRM, Crop and livestock, major points discussed include:** Institutional/ management/ Technical feasibility; Financial feasibility: options/opportunities for co-financing sources and instruments; Scalability: Scale and scope to support the vulnerable people; Sustainability: complimentarily with other programs and future support by government and other actors.

Technical feasibility: Livestock generate greenhouse gases mainly in the form of methane and nitrous oxide estimated to amount to 65Mt CO2e more than 40% of total emission today. To reduce carbon emission agricultural mechanization and shifting from livestock quantity to quality based farming and changing the livestock mix (increase share of small ruminants and chicken). The project interventions are therefore, technically feasible. Further integration of climate smart livestock

husbandry with NRM activities will make the proposed interventions technically feasible. The participants have also further reviewed the crop production interventions, were it was greed that the crop technical activities are also feasible.

Institutionally feasibility: CRGE coordination unit should be considered at each woreda. Since, CRGE is now part of the GTP, and each Ministry and government office at all levels are responsible to report performance of GTP, the project will enjoy full institutional support from the institutions at all levels. Performance of the project will be part of the respective performance agreement in the office concerned and hence it will be well coordinated and feasible.

Financial feasibility: Opportunities for co-financing sources and instruments were explored. It was agreed that various co-financing options could be explored, including among other, woreda regular budget and Community participation. Blended with fund form GCF, the project interventions can be implemented as planned, hence feasible.

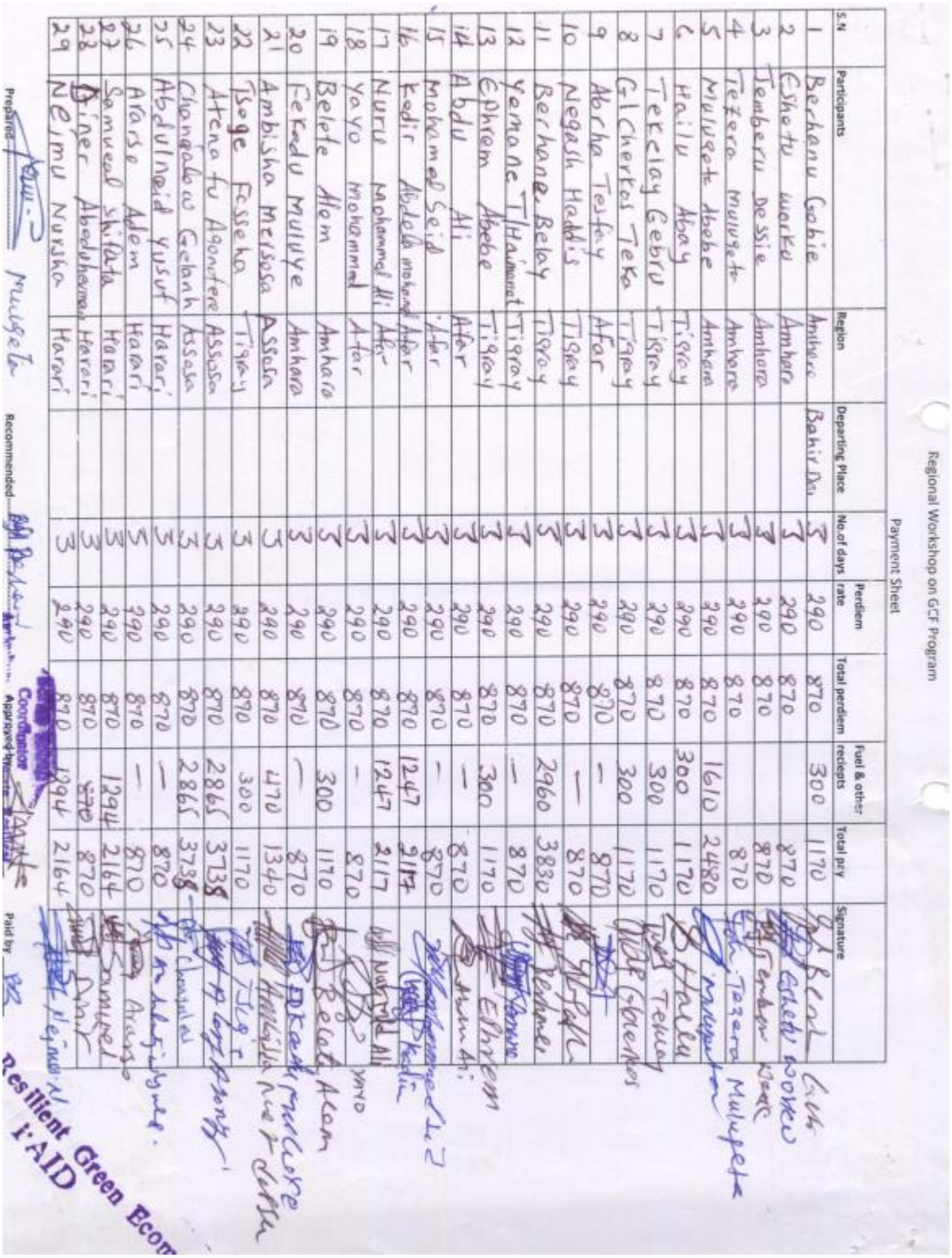
Scalability and Sustainability: it was suggested that **t**o make the project scalable, the project intervention should constitute income generation activities to the communities, which will then in turn ensure sustainability. Further, given the experience in the past, CRGE activities (for example area closure and other watershed management activities etc.) have brought about change to the livelihood of the communities, which further strengthen the argument. When much with prevailing commitment from political leadership, the project will be sustainable and scalable.

The issue of agricultural insurance was raised several times and commented to be properly scrutinized with regards to its functionality. It was also recommended that consultation is needed with Ethiopian Insurance Corporation to understand its

experience of developing and handling insurance products at micro-level and agricultural insurance service delivery. It was also suggested that elements of risk reduction and risk taker should be well addressed in the document. Further, it was noted that climate and weather related data analysis from satellite imagery is usually conducted in Colombia University (USA), and this is taken as draw back to prepare updated mapping and spatial inventory of climate and weather related information. This constrains assisting decision makers to provide best and most timely information available. It was agreed that project should therefore help in this regards.

The sectoral consultation event has provided a platform for cross-sections of stakeholders to provide their perspectives of the project design and also voice their concern. In this course, several issues have been addressed, which have informed the final project design. Stakeholders were also given chance to further validate the structure and content of the project at the national consultation stated above.

List of participants at the sectoral consultation workshop



Regional Workshop on GCF Program

Payment Sheet

S.N	Participants	Region	Departing Place	No.of days	Perdiem rate	Total perdiem	Fuel & other reciepts	Total p/y	Signature
1	Berhanu Gobie	Amhara	Bahir Dar	3	290	870	300	1170	
2	Eshetu worku	Amhara		3	290	870		870	
3	Temberu Bessie	Amhara		3	290	870		870	
4	Tezera Mulugeta	Amhara		3	290	870		870	
5	Mulugeta Abebe	Amhara		3	290	870	1610	2480	
6	Hailu Abay	Tigray		3	290	870	300	1170	
7	Tesclay Gebru	Tigray		3	290	870	300	1170	
8	Gl Cherkos Teka	Tigray		3	290	870	300	1170	
9	Abrha Tesfay	Afar		3	290	870	—	870	
10	Negash Hadis	Tigray		3	290	870	—	870	
11	Berhane Belay	Tigray		3	290	870	2960	3830	
12	Yemane T/Haimanot	Tigray		3	290	870	—	870	
13	Ephrem Abebe	Tigray		3	290	870	300	1170	
14	Abdu Ali	Afar		3	290	870	—	870	
15	Mohamed Seid	Afar		3	290	870	—	870	
16	Kedir Abdella mohamed	Afar		3	290	870	1247	2117	
17	Nuru mohammed Ali	Afar		3	290	870	1247	2117	
18	Yayo mohammed	Afar		3	290	870	—	870	
19	Belete Alem	Amhara		3	290	870	300	1170	
20	Fekadu Mulugeta	Amhara		3	290	870	—	870	
21	Ambisha Merissa	Assosa		3	290	870	470	1340	
22	Tsege Fesseha	Tigray		3	290	870	300	1170	
23	Atena fu Agonafere	Assosa		3	290	870	2865	3738	
24	Chongadaw Gebanh	Assosa		3	290	870	2865	3738	
25	Abdulnaid Yusuf	Harari		3	290	870	—	870	
26	Afarse Adem	Harari		3	290	870	—	870	
27	Samuel Shifeta	Harari		3	290	870	1294	2164	
28	Diner Abedulhemed	Harari		3	290	870	1294	2164	
29	Nejmu Nurdha	Harari		3	290	870	1294	2164	

Prepared by Mulugeta

Recommended by

Coordinator

Approved by

Paid by

Resilient Green Econ

i-AID

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Eshetu Worku	Amhara		3	290	870		870	
Temberu Dessie	Amhara		3	290	870		870	
Tefera Mulugeta	Amhara		3	290	870		870	
Mulugeta Abebe	Amhara		3	290	870	1610	2480	
Hailu Abay	Tigray		3	290	870	300	1170	
Tesclay Gebru	Tigray		3	290	870	300	1170	
Gicherkos Teka	Tigray		3	290	870	300	1170	
Abrha Tesfay	Afar		3	290	870	—	870	
Negash Hadis	Tigray		3	290	870	—	870	
Berhane Belay	Tigray		3	290	870	2960	3830	
Yemane T/Haimanot	Tigray		3	290	870	—	870	
Ephrem Abebe	Tigray		3	290	870	300	1170	
Abdu Ali	Afar		3	290	870	—	870	
Mohamed Seid	Afar		3	290	870	—	870	
Kedir Abdella	Afar		3	290	870	1247	2117	
Nuru Mohammed	Afar		3	290	870	1247	2117	
Yayo Mohammed	Afar		3	290	870	—	870	
Belete Alem	Amhara		3	290	870	300	1170	
Ferdu Mulye	Amhara		3	290	870	—	870	
Ambisha Mersha	Assela		3	290	870	470	1340	
Tsege Fesseha	Tigray		3	290	870	300	1170	
Atena Fu	Agonstere	Assela	3	290	870	2865	3735	
Chanqabo Gebanh		Assela	3	290	870	2865	3735	
Abdulnaid Yusuf	Harari		3	290	870	—	870	
Afarse Adem	Harari		3	290	870	—	870	
Samuel Shifeta	Harari		3	290	870	1294	2164	
Diner Abedthama	Hareri		3	290	870	1294	2164	
Nejmu Nurjha	Harari		3	290	870	1294	2164	

Prepared Mulugeta Recommended Coordinator Approved Director Paid by

Resilient Green Economy
i-AID

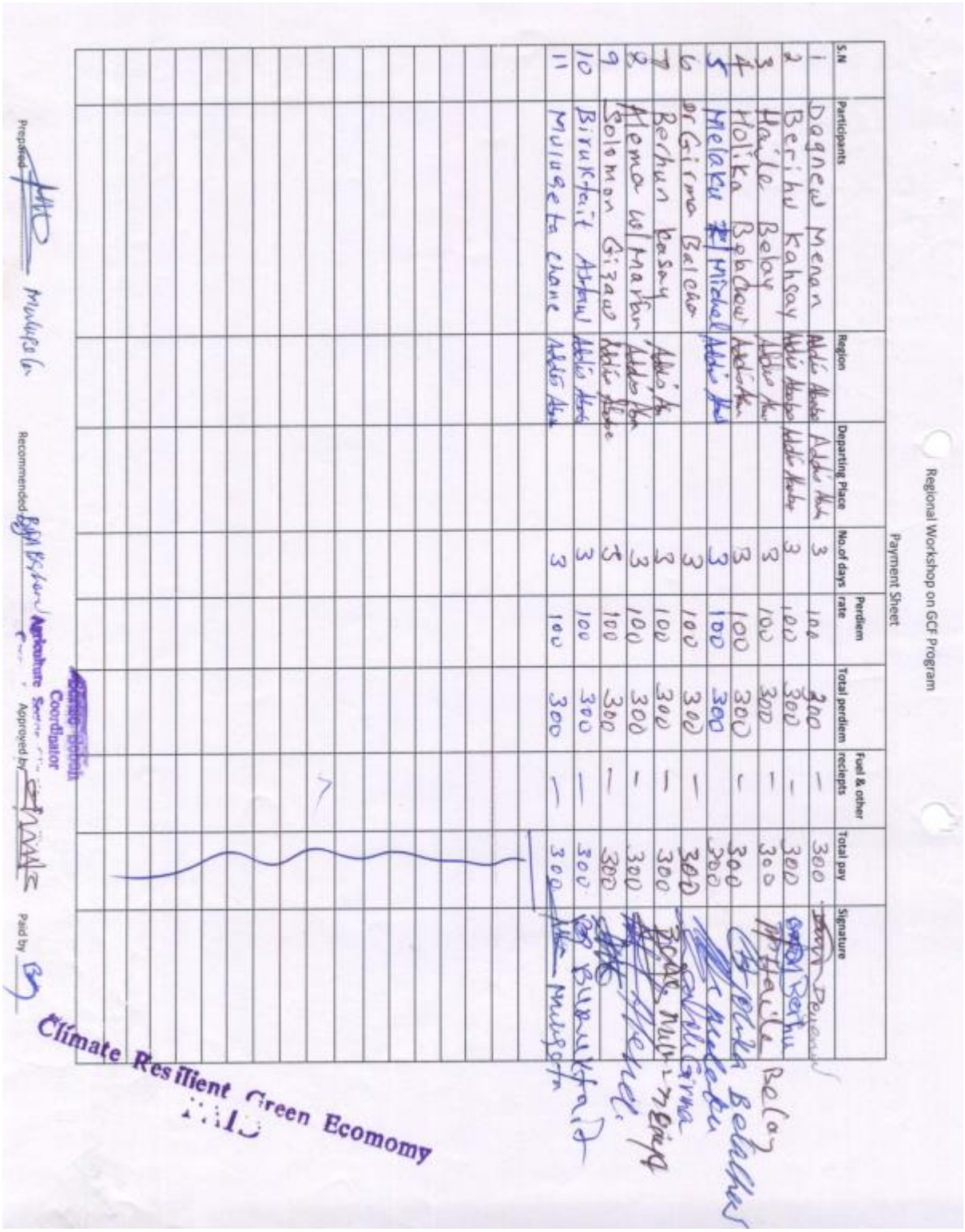
Regional Workshop on GCF Program

Payment Sheet

S.N	Participants	Region	Departing Place	No.of days	Perdiem rate	Total perdiem	Fuel & other reciepts	Total pay	Signature
30	Farhan Elmi Abdilahi	Somali		3	290	870	—	870	Farhan Elmi
31	Abdi Madan Said	Somali		3	290	870	—	870	Abdi Madan
32	Amin Ahmed	Somali		3	290	870	—	870	Amin Ahmed
33	Bedria Mohamud	Somali		3	290	870		870	Bedria Mohamud
34	Fahime Tahir	Somali		3	290	870	—	870	
35	Gizaw Tefera	SNNP		3	290	870	—	870	
36	Daniel Petros	SNNP		3	290	870	—	870	
37	Elen Tsegay	SNNP		3	290	870	—	870	
38	Yetagesu Tadesse	SNNP		3	290	870	—	870	
39	Jemal Abdir	SNNP		3	290	870	—	870	
40	Bimerew Tadesse	SNNP		3	290	870		870	
41	Thichiot Mokuach	Gambela		3	290	870	[illegible]	2543	Thichiot mokuach
42	Samson Yimeru	Gambela		3	290	870	2826	3696	Samson Yimeru
43	Shibru Tilahun	Gambela		3	290	870	2826	3696	
44	Tsegay Buruko	SNNP		3	290	870	—	870	
45	Adman Tafar	Diredawa		3	290	870	2389	3259	
46	Mohamed Usmail	Diredawa		3	290	870	300	1170	
47	Tekiye Sadik	Diredawa		3	290	870	300	1170	
48	Umer Ahmed	Diredawa		3	290	870	300	1170	
49	Fofik Abdule	Diredawa		3	290	870	300	1170	
50	Derese Debebe	Diredawa		3	290	870	—	870	
51	Geremew Tollesa	Diredawa		3	290	870	—	870	
52	Wondesen Abera	Diredawa		3	290	870	—	870	
53	Wondesen Borie	Diredawa		3	290	870	—	870	
54	Solomon Mengiste	Diredawa		3	290	870	—	870	
55	Tena Gelgelo	Oromo		3	290	870	—	870	
56	Atsede Gebreeb	Tigray		3	290	870	—	870	
57	Musa Yosuf	Somali		3	290	870	—	870	
58	Solomon Mamo	Hatari		3	290	870	—	870	

Prepared [illegible] Recommended [illegible] Coordinator Agriculture Sector Approved by [illegible] Green Economy Paid by [illegible]

Resident Green [illegible]



Regional Workshop on GCF Program

Payment Sheet

S.N	Participants	Region	Departing Place	No.of days	Perdiem rate	Total perdiem	Fuel & other reciepts	Total pay	Signature
1	Dagnew Menan	Addis Ababa	Addis Ababa	3	100	300	-	300	
2	Berihu Kahsay	Addis Ababa	Addis Ababa	3	100	300	-	300	
3	Hailu Belay	Addis Ababa		3	100	300	-	300	
4	Holika Bekchow	Addis Ababa		3	100	300	-	300	
5	Melaku Mitchell	Addis Ababa		3	100	300		300	
6	Dr Girma Belcha			3	100	300	-	300	
7	Berhun Besay	Addis Ababa		3	100	300	-	300	
8	Alemu Woldmariam	Addis Ababa		3	100	300	-	300	
9	Solomon Gizaw	Addis Ababa		3	100	300	-	300	
10	Birukteit Abebaw	Addis Ababa		3	100	300	-	300	
11	Mulugeta Chane	Addis Ababa		3	100	300	-	300	

Prepared by

Recommended by

Approved by

Paid by

Climate Resilient Green Ecomomy

Annex 4: Summary of Woreda consultations

The third tier was the woreda and kebele consultation. Woreda level multi-stakeholder platform was the woreda steering committee, locally known as Woreda Administration Cabinet (WAC). Woreda Administration Cabinets' consultations constitute the third level of consultations. About 22 Woreda Administration Cabinet's consultations, each corresponding to target woredas has been facilitated during pre-feasibility and feasibility studies. The feasibility teams were provided with guiding question to facilitate the consultations uniformly across the 22 woredas and several kebeles therein.

The woreda consultations were generally focused on: reaching understanding regarding climate vulnerability and possible response, key stakeholders and engagements needed, understanding overall approach to the project interventions and implementation arrangement, need for community mobilization, issues of land allocation for project activities and issue of environment and social safeguard. Consensus have been reached in all woredas with regard to the target kebeles (sub-districts), types of project interventions, project implementation arrangement, confirmation of land availability, possible cash and in-kind co-financing by woreda administration and communities, and commitment to fully engage stakeholders and mobilize communities. Understanding created regarding executions and project activity coordination at selected landscape, as well as to handle ESS issues as per the national regulation.

The fourth tier was the community/kebele consultation. About 5-8 kebeles were targeted in each woreda. A participatory community consultation was facilitated at two representative kebeles in each target woredas, followed by field assessment and informal consultation with the community members, kebele administrators in all kebeles. The consultation involved five-step facilitated conversation –
Step 1 understanding the problem and community needs;
Step 2: prioritize among priorities;
Step 3: jointly exploring solution options, starting with community own solutions;
Step 4: understanding what community can do themselves and what external support is needed;

Step 5: reaching understanding on how the community would like to engage in the project implementation, including the need for community contribution and land allocation.

Most community conversations/consultations were concluded by identifying key problems/challenges of the communities, list of possible interventions; priorities for the project interventions, confirmed communities' commitment for labor contribution and making land available as per the project design. The communities have agreed to allocate, mainly communal land and as necessary from holding of community members, for reforestation, afforestation, SLM activities, irrigation scheme, and common infrastructures as necessary. Community members will be compensated for land reallocation as per existing practice. Moreover, the following observation has been record during the conversation and field assessment in the target landscape during prefeasibility study and further analyzed during feasibility:

Community consultations in different woredas

1. Pastoralist and agro pastoralist farming system woredas	
State	Driver
Food insecurity : most household do not meet their food need, and prevalence of high malnutrition	**Limited livelihood options**: Livelihood sensitive to climate shocks- (both slow and fast onset hazards)
Community health: poor health status of most communities' members, high morbidity, mortality and stunted child growth and poor maternal health	Poor nutrition (food shortage in quantity and quality) , lack of clean water supply and sanitation , poor health coverage – all driven directly and indirectly by poor management of hydro-meteorological hazards and prevalence of high poverty
Widespread Animal diseases : poor animal health, and high death rate of animals leading to precarious community livelihood	Frequent drought, induced shortage of animal nutrition, fodder and pasture degradation, poor veterinary service, overstocking on ever shrinking grazing land due to degradation, genetic limitation in meat, milk and egg production and poor management of hydro-meteorological hazards; Animal concentration in limited grazing and water points, which is favorable for diseases transmission
Declining and poor Crop production: limited crop production in general and frequent crop failure	Dependency on rain and flood retreat agriculture, low level of improved technology and practice penetration, Poor management of hydro-meteorological hazards
Declining Animal production: low and poor productivity of livestock and death, sometime	Shortage of animal nutrition, fodder and pasture degradation, poor veterinary service, overstocking, genetic limitation in meat, milk

total loose due to drought and flood- exposing the pastoralist/agro-pastoralist to climate risk	and egg production, poor management of hydro-meteorological hazards; poor market infrastructure and poor/limited risk management system
Escalating Conflict-competition over shrinking natural resource: High competition over limited pasture and water during drought and prevalence of conflict among different community groups, sometimes claiming lives and loos of livestock	Ever shrinking productive pasturelands due to drought and desertification, bush encroachment and invasive species infestation and biodiversity lose; Drought induced water shortage leading to concentration of animals in few water points; Under development of water resource and poor management of water schemes
Financial assets: Predominantly Pastoralist do not have a culture of saving, have limited access to financial services such as banks, insurance and credit	Low level of financials inclusion and financial literacy, limited access to financial services
Loss of Physical asset: the main assets for pastoralist is livestock, which is currently sensitive to hydro-meteorological hazards and deforestation because of charcoal and fuel wood extraction	Miss much between demand and supply of woody biomass due to increase in demand on one side and decreasing supply on the other Increasing in frequency and intensity of drought and flash flood Low penetration of improved practices in management of livestock and hazards
Loses of Social capital : climate induced shocks undermine the social capital by escalating social problem and creating depends on aid	Community institutions weakens; Conflict escalates; Traditional coping mechanism exhausts due to high intensity climate shocks such as prolonged drought, flooding and erratic rain.

Increasing Water stress: due to decreasing water availability due to drought and low dry weather flow and poor management of available water resource	Poor watershed management, poor rain water management practices, poor water use efficiency and low water technology penetration and low investment in water development, particularly ground water resource
Decreasing land productivity due to loose of soil fertility and intense soil erosion leading shrinking resource base for livelihood.	Fragile ecosystem exposed to multiple stress including drought and desertification, soil erosion because of loose of vegetation cover exposing to high intensity rainfall induced soil erosion; loose of biodiversity.
Declining Forest, wood resource and biodiversity further undermine resource base for community resilience	Drought and desertification, propelled by climate change, leading to over extraction of forest and wood resources as temporary response and improper land use practice
Enabling environment: there is no incentive mechanism for proper, efficient and sustainable resource use and management	Policy implementation gap, Capacity limitation of local institutions to provide services, market system not functioning and poor technology access and penetration, limited access to financial service (financial exclusion)
Weak institutional support to communities to deal with shocks, early recovery and sustain livelihood	poor capacity manifested in skill and knowledge gaps, lack of systems and facilities
Fragmented and uncoordinated Sector centered planning and implementation of development intervention not enabling effective response to climate change shocks	Lack of planning model that integrate development intervention at landscape level, where jurisdiction, ecosystem process, and community and other actors interact for effective development interventions as well as optimal environmental resource use.
Little or no market based production system leading to	Subsistence agro-pastoralist and pastoralist mode of production, quantity overrides quality

subsistence and lose of HH assets even under minor disaster events	because of cultural value
Absence of climate information and early warning service	Limit access to hydro-meteorological information and early warning services; limited capacity for observation, reporting, analysis and dissemination and utilization climate services
No risk transfer system	Underdeveloped insurance service , Limited Historical data and climate observation system and capacity to develop insurance product as well as limited awareness at all levels , including the pastoralist and local government.
Increasing frequency and intensity of climate hazards: communities are sensitive to exposure to most hazards, drought, erratic rainfall, flash flood and heat waves, usually leading to damage to their livelihood	Poor resilience capacity of the community, dependency on climate sensitive livelihood, lack of disaster risk reduction systems and measures, no alternative livelihood, and environmental degradation and lack of spatial plaining (zoning)

2. Crop –livestock mixed farming system woredas	
State	Driver
subsistence agriculture and poverty becomes magnified in event of climate extremes, slow and fast onset disasters	low levels of technology, limited farm inputs, low access to finance, limited extension services, inadequate transport networks and low market information. Limited level of education and high dependency ratio. Risks from pests and diseases (crop and livestock)
Absence of early warning system and therefore farmers are less prepared for climate shocks and do not optimize agricultural operation using real-time weather information, which could have boosted productive and reduced loos.	Inadequate weather observation system and absence of climate information service,
Food in security: most household do not meet their food need, prevalence of high malnutrition	Limited livelihood Livelihood sensitive to climate shocks- (both slow and fast onset hazards)
Human health deteriorates during drought disaster events: poor health status of most communities, high morbidity, mortality and stunted child growth and poor maternal health	Poor nutrition (food shortage in quantity and quality) , lack of clean water supply and sanitation , poor health coverage – all driven directly and indirectly by frequent drought, poor management of hydro-meteorological hazards and high poverty

Animal health: poor animal health, and high death rate of animals leading to precarious community livelihood	Shortage of animal nutrition, fodder and pasture degradation, poor veterinary service, overstocking, genetic limitation in meat, milk and egg production and poor management of hydro-meteorological hazards; Animal concentration in limited grazing and water points – favorable for diseases transmission
Crop production: limited crop productivity and frequent crop failure	Dependency on rain and flood retreat agriculture, low level of improved technology and practice penetration, Poor management of hydro-meteorological hazards
Animal production: low and poor productivity of livestock and death, sometime total loose due to drought and food- exposing the famers to climate risk	Shortage of animal nutrition, fodder and pasture degradation, poor veterinary service, overstocking, genetic limitation in meat, milk and egg production, poor management of hydro-meteorological hazards; poor market infrastructure
Financial exclusions: culture of saving is not developed and have limited access to financial services such as banks, insurance and credit	Low level of financials inclusion and financial literacy, limited access to financial services
Lose of Physical asset: the main assets incudes is livestock, trees in the backyard. Livestock is currently sensitive to hydro-meteorological hazards and shortage of feed and fodder	Miss-much between demand and supply of woody biomass due to increase in demand on one side and decreasing supply on the other Increasing in frequency and intensity of drought and flash flood , Low penetration of improved practices in management of livestock and hazards

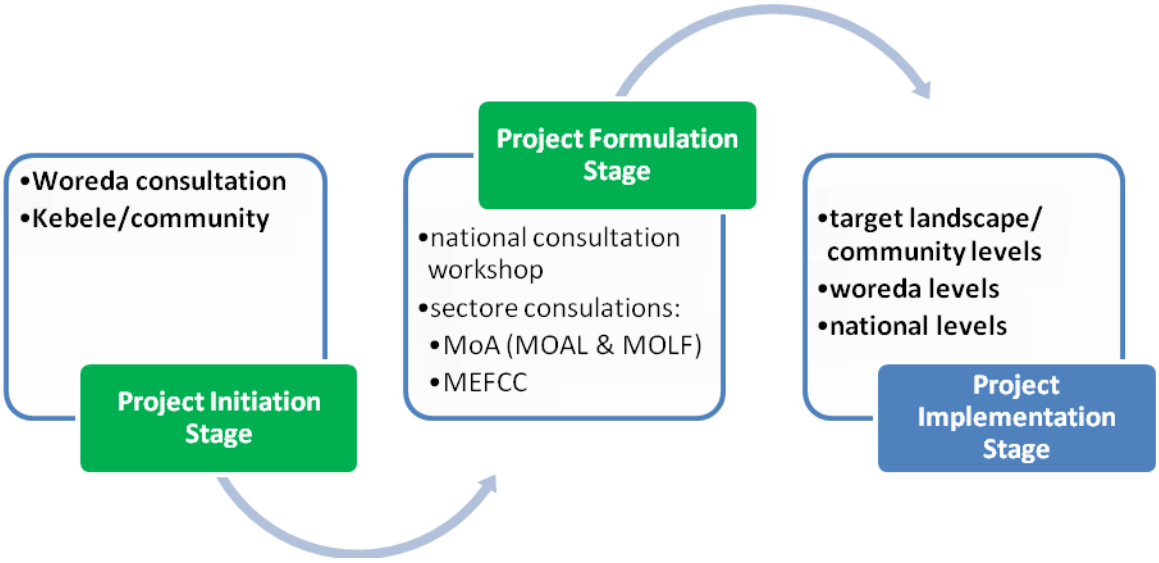
Loses of Social capital: climate induced shock undermine the social capital by escalating social problem and creating depends on aid and exhausting community capacity and solidarity	Community institutions weakens; Conflict escalates; Traditional coping mechanism exhausts due to high intensity climate shocks such as prolonged drought, flooding and erratic rain
Increasing Water stress: decreasing water availability due to drought and low dry weather flow and poor management of available water resource	Poor watershed management, poor rain water management practices, poor water use efficiency and low water technology penetration
Decreasing land productive due to loose of soil fertility and erosion	Fragile ecosystem exposed to multiple stress including drought and desertification, soil erosion because of loose of vegetation cover exposing to high intensity rainfall induced soil erosion; loose of biodiversity
Declining Forest, wood resource and biodiversity further undermine resource base resilience of community	Drought and desertification, over extraction of forest and wood resources, improper land use practice
Enabling environment: there is no incentive mechanism for proper, efficient and sustainable resource use and management	Policy implementation gap, Capacity of local institutions to prove services, not function market system and poor technology access and penetration, access to financial service
Weak institutional support to communities to deal with shocks, early recovery and sustain livelihood	poor capacity manifested in skill and knowledge gaps, lack of systems and facilities
Fragmented and uncoordinated Sector centered planning and implementation of development intervention not enabling effective	Lack of planning model the integrate development intervention at landscape level where jurisdiction, ecosystem process, and community and other actors interact for

response to climate change shock	effective development interventions
Little or no market based production system	Subsistence agro-pastoralist and pastoralist mode of production, quantity overrides quality because of cultural value
Absence of climate information and early warning service	Limit access to hydro-meteorological information and early warning services ; limited capacity for observation, reporting, analysis and dissemination and utilization climate services
No risk transfer system	Underdeveloped insurance service, Limited Historical data and climate observation system and capacity to develop insurance product as well as limited awareness at all levels

Figure 2 Stakeholder Engagement Processes

1. Introduction

This project entitled "Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities" involves various stakeholders, ranging from federal organs of government to local community institutions and beneficiaries at the grassroots levels. Stakeholders are engaged at the three tiers of Government- federal, state and local. The primary instruments for engagement are through consolation meetings and workshops and regular platforms. The following schematics depicts the stakeholder's engagement processes, which can be can be viewed as project identification stage, project formulation stage and project implementation stage engagement processes.



The project initiation and formulation stages engagements have been successfully facilitated. Likewise, it is envisaged that engagement will continue even more stronger. To realize this various tools and instruments are put in place. This plan will therefore elaborates the purpose, tools and schedule of engagement.

2. Stakeholder Analysis

Stakeholders	Stakeholders expectations /stake	Likely reaction or impact on the project if expectation is not met
1. Federal Government Organs – EE Internal stakeholders		
- **Different division of MOANR**	Discharge a duty of technical subject matter specialists by fully engaged in the project design and implementation	Poor design of the project, indifference in the project implementation and escalated contradictions
- **Different divisions of MOWIE**	Discharge a duty of technical subject matter specialists by fully engaged in the project design and implementation	Poor design of the project, indifference in the project implementation and escalated contradictions
2. Federal Government organs – external stakeholders		
- **National Meteorological Agency**	As a national competent authority on meteorological infrastructure and climate service, need to be fully engaged in the design and implementation	The EWS interventions will not be successful implemented
- **National disaster risk management commission**	As a national authority to monitor possible disaster hazards and trigger national response including early recovery, seek to ensure synergy between DRM and the project interventions	Loos coordination and lack of synergy between DRM and the project intervention
- **Institute of agricultural**	Mandated for agricultural technology generation, need to	The project not being supported by the best

research	engaged to ensure that the recommend agricultural technologies are appropriate both from CC and the agro-ecology and need to put technology needs in the national research agenda	available agricultural technology and techniques, new demand not integrated in the research agenda. Advisory support not granted
- Agricultural **transformation Agency**	Support agricultural transformation by removing barrier and introducing innovative enablers including climate smartness.	Interventions may not be aligned and therefor leads to fragmentations
Regional state stakeholders		
Line bureaus of the four EEs	Need to make sure that regional priorities are part of the design and implementation is coordinated and delivery is efficient and effective	Overall project design and implementation will not be effective with out the full engagement of line bureaus as they are authorized by mandate
Regional micro enterprise agencies	Job creation and establishment and effectiveness of micro enterprise	Project may suffer from poor coordination with the agencies
Regional cooperative offices	Expansion of cooperatives	Project may suffer from poor coordination with the offices
Woreda stakeholders		
Woreda administrator's office	Ensure delivery of social, economic and environmental goals of the district. Coordinate	Poor coordination, delayed project progress, community not mobilized,

	development initiatives in the woreda and report on the progress to the woreda council and regional government	commitment on co-financing and land allocation may not be realized; ESSP may not be effectively delivered.
Line offices of the four EE	Proper design and implementation; execution on the ground and for this to happen need to receive budget and technical support timely	Poor execution of the project
Kebele stakeholders		
- Kebele administration	Coordinate development activities in the kebele; mobilize community members and manage land and resource tenure issues, manage disputes	Programme implementation challenged
- Farmers training centers	Mandated to provide farmers training and are also target for capacity building.	Farmers training and field implementation jeopardized
- **Religious organization**	Engagement in community affairs, capacity building	Community mobilization and resistance to change
- **Other institution such as school and health centers etc.**	Engagement in the community affairs, capacity building	Exclusion generates mistrust and misunderstanding
Social groups		
- Women	Equal participation in project design and implementation, equal benefit sharing form the project outputs. ESS	Project ineffective and unsustainable
- Men	Equal participation in project	Project ineffective and

	design and implementation, equal benefit sharing form the project outputs, land and resource tenure, ESS	unsustainable
- Youth	Employment opportunity, ESS	Project ineffective and unsustainable
- Poor HH	Livelihood enhancement	Effective targeting
Private sector		
- Input/technology suppliers	Technology and input supply opportunity, reliable market and capacity building	Poor participation leading to ineffectiveness,
- Output byers and processors	Reliable supply of agricultural produces, access to fiancé and capacity building	Poor participation of private sector in the agricultural value chain
- Micro finance institutions	Reliable business opportunity; Capacity building and linkage and credit administration	Several interventions that are contingent on credit facility will be jeopardized
Civil society	Voice community concern; engage in the project design and implementation, involve in ESS	Counter productive communication, opportunity for synergy and co-financing
Academic and research organization	Engage in training, capacity development, technology and good practice generation,	Project not capturing opportunities and partnership

Development partners	Promoting climate resilient green economy practice and opportunity for synergy and partnership, including possible co-financing	Partnership opportunity undermined

3. **Objectives:** the objective of the stakeholder engagement plan of the project is to provide a clear strategy, platform and timeline for effective engagement that will ensure inclusive and successful project implementation.

4. **Strategy:** the overall strategy for the stakeholder engagement is creating platform for meaningful interaction and addressing stakeholder issue proactively and as it evolves. Stakeholders with execution role will be engaged as per the instrument for allocation of responsibility. Various tools and instruments will be adopted to facilitate effective engagement including the following**:**

   4.1. National project steering committee meeting, where EEs, the GCF Implementing Entity, MOFEC, regional representatives, privates sector representative (e.g. MFI) and CSO etc. will exercise collective leadership**;**

   4.2. National technical advisory committee meeting: where technical experts from various stakeholders are represented to provide technical advisory to the project management and steering committee as deemed necessary. It also meets frequently.

   4.3. Bi-annual sector project review meeting: the four executing ministries will organize sector focused consultations and review at least twice a year, that will provide opportunity to engage federal, regional and woreda players and address both technical and administrative issues.

   4.4. Bi-annual Joint monitoring mission: JMM will be facilitated by CRGE Facility and composed of all EEs, other partners including co-financers as necessary

   4.5. Annual stakeholder project review workshop: stakeholder from divers background will be meeting once a year and discuss on the progress and issues, with the aim to inform and get feedback on emerging issues and opportunities from stakeholders.

4.6. Woreda steering committee meetings: this is a committee on the ground coordinating project execution at landscape level and chaired by woreda administrator and members represents head of all sector offices and key actors at woreda levels. This committee meets frequently, and at least every quarter and facilitated by the woreda project coordination office.

4.7. Watershed /landscape committee meeting: this committee is composed of kebele administration, representative of the beneficiary communities (men, women, youth) and religious group etc. this committee will meet as frequently as necessary and facilitated by the chair of the committee.

4.8. Bi-annual participatory community project planning and monitoring meeting: this meeting will be facilitated by the project coordination unit and woreda steering committee, with a view of enhanced participation of the community, and addressing project – community issues including ESS.

4.9. Establish and operate partnership platform with different working groups as necessary: Projects and programs having a similar objective as well as stakeholders will be provided with opportunity to share lessons and discuss issues**;**

4.10. Farmers field day: will be facilitated for farmers to learn new skills and practices, from model farmers and demonstration activities.

4.11. Budget transparency- annual budget of the project will be posted at the kebele concerned so as the communities understand allocation of budget, activity planed and thereby enhance accountability to the community.

5. Stakeholders Engagement Plan

Engagement activities	Timeline																			
	Year 1				Year 2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. National steering committee meeting																				
2. National technical advisory committee meeting																				
3. Bi-annual sector project review meeting																				
4. Bi-annual Joint monitoring mission																				
5. Annual stakeholder project review workshop																				
6. Woreda steering																				

committee meetings																			
7. Watershed /landscape committee meeting																			
8. Bi-annual participatory community project monitoring meeting																			
9. Establish and operate partnership platform with different working groups																			
10. Farmers field day																			
11. Budget transparency-annually posting project budget																			

***The budget estimated is for the entire project period and covers cost at respective target geographic areas (federal, woreda and kebeles) and this is part of the project management cost (not an additional)**