Ethiopia

MINISTRY OF IRRIGATION AND LOWLANDS

LOWLANDS LIVELIHOOD RESILIENCE PROJECT, PHASE TWO
(LLRP II)

P180076

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

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Table of Contents

List of Tables..... *2*
Abbreviations and Acronyms..... *3*
Executive Summary..... *4*

1.Introduction..... *9*
2.Project Description..... *9*
3.Environmental and Social Policies, Regulations, and Laws..... *13*
4.Potential Environmental and Social Risk Impacts and Standard Mitigation Measures..... *24*
5.Procedures and Implementation Arrangements..... *48*
6.Stakeholder Engagement, Disclosure and Consultations..... *60*

Annexes..... *61*
Annex 1. Screening Form..... *61*
Annex 2: Terms of Reference (ToR) for Preparation of an Environmental and Social Impact Assessment (ESIA)..... **66**

Annex 3. Environmental and Social Management Plan (ESMP) Template..... *84*
Annex 4. Labor Management Procedures..... *115*
Annex 5. Chance Find Procedures..... *125*
Annex 6. Fertilizer and Pest Management Plan Guideline..... *126*
Annex 7: Indicative Content of a Biodiversity Management Plan (BMP)..... **130**
Annex 8: Report Format..... **131**
Annex 9: Waste Management Plan..... **136**
Annex 10: Occupational Health and Safety Plan..... 145

List of Tables

Table 1. The potential environmental and social risks for project activities: 4
Table 2. The E&S risks will be managed and mitigated through the application of measures: 5
Table 3. Ethiopian Relevant Legal Framework..... 13
Table 4. Relevant World Bank ESS and Key Gaps with the National Framework 21
Table 5. Environmental and Social Risks and Mitigation Measures during implementation 24
Table 6. E&S risk and impacts mitigation measures at the planning and design phase of the project..... 45
Table 7. Project Cycle and E&S Management Procedures..... 48
Table 8. Exclusion List of criteria for sub-project identification and screening..... 49
Table 9. ESMF Implementation Arrangements..... 54
Table 10. Proposed Training and Capacity Building for the implementation of the ESMF 56
Table 11. Estimated Budget for ESMF Implementation 58

Abbreviations and Acronyms

AICCRA	Accelerating Innovations by CGIAR on Climate Research in Africa"
ATI	Agricultural Transformation Agency
CDD	Community Driven Development
C-ESMP	Contractor's-Environmental and Social Management Plan
CGIAR	Consultative Group for International Agricultural Research
CIS	Climate Information Services
CoC	Code of Conduct
CSRL	Climate Resilient and Sustainable Livelihoods
DA	Development Agent
EHSGs	Environmental Health and Safety Guidelines
ESIA	*Environmental and Social Impact Assessment*
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FEPA	*Federal Environmental Protection Agency*
FPCU	Federal Project Coordination Unit
GBV	Gender Based Violence
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IDP	*Internally Displaced Persons*
LLRP	Lowlands Livelihood Resilience Project
LMP	Labor Management Procedure
MILLs	Ministry of Irrigation and Lowlands
MoA	Ministry of Agriculture
MoH	Ministry of Health
MoLS	Ministry of Labor and Skills
MoWSA	Ministry of Women and Social Affairs
OHS	Occupational Health and Safety
PEI	Public Economic Infrastructure
PPE	Personal Protective Equipment
PRM	Participatory rangeland management
PRMR	Pastoral Risk Management for Resilience
RCST	Rangeland Cluster Support Team
REPA	*Regional Environmental Protection Agency*
RMP	Rangeland management plans
RMP	Rangeland management plans
RPCU	Regional Project Coordination Unit
SCAP	Safeguard Corrective Action Plan
SE	Sexual Exploitation
SEA	*Social and Environmental Assessment*
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SSA	*Sub-Saharan Africa*
WB	World Bank
WoEP	Woreda office of Environmental Protection
WoPD	Woreda office of Planning and Development

Executive Summary

The World Bank will be supporting the Ministry of Irrigation and Lowlands in implementing the Lowlands Livelihood Resilience Project, Phase two (LLRP II). The objective of the project is to improve the "livelihood resilience" of pastoral and agropastoral communities in Ethiopia in the face of increasing climate risks. The project will support activities under four major components. Component 1 will focus on closing the climate resilience infrastructure gap in the lowlands via investments in Public Economic Infrastructure (PEIs) and the last mile transmission of early warning systems, to increase both the capacity to respond to emergencies and the long-term resilience of Pastoral and Agro-Pastoral (PAP) livelihoods. Component 2 focuses on enhancing PAP systems' natural resource base with a focus on building integrated rangeland and other Natural Resources management and conflict management capacities in PAP areas. Component 3 aims to enhance PAP households' livelihoods increasing and sustaining their incomes and by supporting the commercialization and diversification of their economic activities. Component 4 covers all aspects of project management and M&E including knowledge management, and policy support. The project components are strongly intertwined and will be planned and implemented in an integrated fashion. For instance, investments in nature-based solutions under Component 2 will complement infrastructure investments in Component 1, and livelihood diversification under Component 3 will support conflict management in Component 2 and will be supported by PEIs financed under Component 1.

The project activities will take place in 8 regions and in 120 Woredas. Specific locations of subproject activities are not known at this stage, because sub-project interventions will be identified and prioritized in a participatory process in collaboration with the target communities during the actual planning and design stages. The subproject locations will be known after the selection of the intervention Woredas based on the risk profile analysis of all Woredas in the regions. The sub-project locations will be known after screening of sub-project activities for potential E&S risks and impacts, sustainability, and feasibility of the proposed investments.

This Environmental and Social Management Framework (ESMF) has been prepared to identify the potential environmental and social risks and impacts of proposed Project activities and propose suitable mitigation measures to manage these risks and impacts. It maps out the Ethiopian laws and regulations and the World Bank policies applicable to the Project, and describes the principles, approaches, implementation arrangements, and environmental and social risks and impacts mitigation measures to be followed.

Table 1. The potential environmental and social risks for project activities:

Type of Risk	*Potential risks and impacts*
Environmental risks and impacts	✓ Disturbance to natural habitats, vegetation clearing and biodiversity loss, cultural heritage sites ✓ Soil disturbance, water and wind erosion initiation, dust pollution, soil salinization, soil contaminations ✓ Solid waste generation and contamination ✓ Surface and ground water pollution, ✓ Noise pollution from machineries, trucks ✓ Road accidents or fatalities, to local community and project workers ✓ Failure of small dam structures ✓ Risk from pesticide use and management ✓ Unmanaged local livestock movements and overgrazing, biodiversity loss, invasive species ✓ Animal disease outbreaks; threats to biodiversity, bush encroachment, pest animals and birds

	✓ Visual obstruction and intrusion from solar panels, installation site, biodiversity and Ecosystem damage ✓ Small scale GHG emissions due to CDD nature of the activities
Social risks and impacts	✓ Social tensions/ conflicts over resources, access to services, competing needs for water ✓ OHS risk and hygiene in construction site, ✓ Child labor involvement ✓ Labor influx to project areas, Community health risks ✓ Land acquisition ✓ Security and safety risks to project workers ✓ Elite capture as a result of insufficient community engagement ✓ Social exclusion and vulnerability of the disadvantaged and vulnerable groups ✓ Gender-based violence, sexual exploitation and abuse, and sexual harassment (GBV/SEA/SH)

Table 2. The E&S risks will be managed and mitigated through the application of the following measures:

Project phase	*Mitigation measures*
Planning and design phase	✓ Avoid the risk using the exclusion criteria in this ESMF during sub-project activity and site identification and propose alternative routes/sites ✓ Avoid selecting construction sites in and around nature reserves or species conservation areas during planning ✓ Conduct reconnaissance survey of potential sites through a participatory process for all PEIs in component 1 ✓ Select qualified design consultants through a transparent and standard procurement procedures of GoE and WB ✓ Adjust sub-project activity designs to avoid/minimize the risks ✓ For unavoidable impacts, ensure activity –specific ESIA and ESMPs are prepared before implementation ✓ Present proof of acquired land legality and voluntary donation ✓ Ensure sub-project activities do not cause physical damage to property ✓ Comply with appropriate design standards and criteria for irrigation water management ✓ Select appropriate water efficient technology during design and planning (e.g., drip irrigation instead of open furrow and flood irrigation) that reduces excessive water use and evaporation ✓ Prepare soil salinity management plan ✓ Prepare an Integrated Pest Management Plan to minimize the impacts from pesticide use ✓ Prepare the necessary PPE and training manual for the use and management of agrochemical inputs ✓ Re-rout and avoid potential contamination to water sources; design treatment of waste water before discharge as per the EPA specific standards Prepare waste management plan for liquid and solid waste ✓ Prepare a design to contain the release and containment of toxic substances away from water sources ✓ Prepare waste recycling and reuse plans; ✓ Prepare Safe disposal and management plan, as per recommendations of EPA and Environmental, Health and Safety (EHS) Guidelines of the World Bank

	✓ Prepare and apply a traffic management plan detailing traffic control procedure, training materials, sign posts and signals, among others ✓ Prepare dam safety measures during design and bid tendering, ✓ Prepare emergency and preparedness plan for any such eventualities ✓ Use guidelines prepared for prescribed fire use and management ✓ Avoid starting a fire in unmanageable size of a landscape so that it can't go out of control ✓ Avoid involuntary land acquisition during sub-project identification ✓ In cases of minor land acquisition, avoid involuntary resettlements, when possible to do so ✓ Based on the ESIA and site specific instruments results, a specific resettlement plan (RP) should be prepared and implemented in accordance with ESS5, consistent with the RF ✓ Ensure non-discrimination policy, laws and guidelines are properly observed and principles are adhered ✓ Ensure beneficially selection and targeting criteria are inclusive enough and considerate of all disadvantaged and vulnerable groups
Construction, Implementation and operation	✓ Ensure there are no sensitive fauna and flora species within and around the construction area ✓ Ensure there is no spill-over effect to the surrounding areas, ✓ Conduct planting and re-vegetation of sites to compensate loss of trees and vegetation ✓ Prioritize and minimize impacts or avoid damage to indigenous trees of significant importance, avoid or minimize cutting of big trees (mother trees), particularly indigenous species ✓ Protect heritage sites from damage during construction material removal and transport ✓ Comply with the appropriate law governing cultural heritages (Proclamation No. 209/2000) ✓ Construction should be done in the dry season ✓ Re-vegetate the roads vulnerable to erosion and removal of sediment. ✓ Avoid or minimize vegetation clearance, excavation and inappropriate disposal of soil ✓ Dump sites or cart away sites should be prepared ✓ Use recommended waste collection, handling, transport and disposal methods ✓ Store solid waste temporarily on-site in a designated place prior to off-site transportation and disposal. ✓ Collect and dispose in legally permitted disposal sites, landfills. Open burning and burial of waste shall not be allowed ✓ Ensure project activity designs are considerate of vulnerable and disadvantaged groups ✓ Educate workers and communities using posters, flyers in local languages about GBV/SEA/SH, during field days, public gatherings ✓ Cultural sensitization training should be given to workers on how to engage with local community; ✓ Remove aging and large size stock from the herd and replace with small ruminants ✓ Construct speed breakers to reduce speed of construction vehicles to acceptable level (schools, settlements and high pedestrian traffic areas)

	✓ Provide barriers or exclusion zones around sites where machines and trucks are operated as part of the construction process ✓ Adopt and implement dam safety measures during design, bid tendering, construction, operation and maintenance of the dam and associated works ✓ Comply with national design and construction standards and requirements ✓ Provide highly nutritive livestock/legume feed that minimizes methane release

Proposed sub-project activities should be screened to ensure that they don't fall under the activities listed on the E&S exclusion list. Since the overall risk rate of the LLRP II project is substantial, high-risk sub-projects are subjected to screened out. In line with the ESCP, when significant risks and adverse impacts on biodiversity have been identified, a Biodiversity Management Plan will be developed. The FPCU and RPCU will screen the sub-projects using the E&S screening criteria to identify sub-project specific environmental and social risks, and identify mitigation measures. For those sub-projects classified as substantial risk, ESIA /PESIA will be prepared, while for moderate risk PESIA or ESMP will be prepared. A sampling approach such as typology and geographical location, following a risk-based approach will be employed to determine the required number of a representative ESMP preparation of subprojects prior to implementing the project. The FPCU/RPCU or contractors will prepare specific ESMP and following approval by REPA and WB, the ESIA/PESIA or ESMPs will be disclosed to stakeholders in accessible forms (hard copies, soft copies through websites, and consultations will be held with the PAPs for proper implementation, supervision and monitoring of compliance. The FPCU/RPCU and contractors will provide the necessary trainings to relevant staff and communities who will be responsible for the operations and management of E&S measures.

Implementation arrangement: the MILLs/FPCU is the implementing agency responsible for providing policy guidance by overseeing and leading the overall management of the LLRP II. In the ESMF implementation, the FPCU will be responsible for the oversight and quality control on the implementation of the ESMF and other E&S instruments through its structure of the RPCU, RCST and Woreda coordination office. Its key roles include supervision and quarterly monitoring, compilation of overall reports and communicating with the WB, training of E&S staff at the region and Woreda levels, conducting E&S audits, updating and disclosure of this ESMF as deemed necessary. The RPCU is tasked with overseeing the day-to-day implementation and monitoring of environmental and social risk and impact mitigation measures, and report progress and performance to the FPCU on a monthly basis at the region level. The RPCU will prepare and/or review Site specific ESMPs and submit to REPA or FPCU for further review and approval. Providing training to Woreda focal persons, contractors and sector specialists, and monitoring of compliance at region level are done by the RPCU. The Woreda Pastoral/ Agriculture/Livestock Development (WoPALD) is the coordination office at the Woreda level and it is responsible to supervise and coordinate the day-to-day implementation and monitoring of E&S risk and impact mitigation measures, and reports progress and performance to the RPCU on a monthly basis. The E&S focal persons prepare site specific ESMPs for subproject activities and submit the same to the RPCU. They are responsible to screen activities that do not fall under the exclusion list. The office provides training to DAs and extension workers, technicians, local contractors and Woreda level E&S safeguard focal persons on relevant environmental and social risk and impact mitigation measures. The total estimated budget for the implementation of the ESMF for the entire project period is $ 6.011M.

Monitoring: The monitoring of the ESMF implementation is carried out by the PCUs at the different levels. The FPCU will monitor through site visits and receiving written progress reports on quarterly basis from the RPCUs. The FPCU is responsible for reporting quarterly to the WB. The internal E&S audit can be done by FPCU and regional environmental protection authority and the FPCU shall conduct an independent E&S audit every two years and submit the audit report to the project coordinating unit and to the World Bank.

The RPCU will monitor progress at the regional level and receives written reports from the coordinating Woreda offices on a monthly basis, and conducts site visits on monthly basis or as deemed necessary. The Woreda E&S focal person and GBV specialists will visit project sites and compile reports to report to the RPCU on monthly basis.

A separate **Stakeholder Engagement Plan** (SEP) has been prepared for the Project, based the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement, which can be found on the LLRP website.

1. Introduction

This Environmental and Social Management Framework (ESMF) is developed to support the environmental and social due diligence provisions for activities financed by the World Bank in the Lowland Livelihoods Resilience (Phase II) Project or LLRP II. The main objective of the project is to improve the "livelihood resilience" of pastoral and agropastoral communities in Ethiopia in the face of increasing climate risks. The project will restore degraded rangelands by adopting nature-based and climate resilient solutions, improve productivity through improved management and introduction of highly nutritive species of fodder to the pasturelands. The project will increase access to improved rangelands and natural resources to women and the youth; increase yield of livestock and cultivated crops, improve adaptation and livelihood resilience capacities to mitigate the impacts of climate change. LLRP II will be implemented in all the 7 regions of LLRP I and in the newly added Dire Dawa City Administration region. The MILLs will be implementing the Project activities.

This ESMF follows the World Bank Environmental and Social Framework (ESF) as well as the national laws, regional laws and regulations of Ethiopia. The objective of the ESMF is to assess and mitigate potential negative environmental and social risks and impacts of the Project consistent with the Environmental and Social Standards (ESSs) of the World Bank ESF and national requirements. More specifically, the ESMF aims to (a) assess the potential environmental and social risks and impacts of the proposed Project and propose mitigation measures; (b) establish procedures for the environmental and social screening, review, approval, and implementation of activities; (c) specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social issues related to the activities; (d) identify the staffing requirements, as well as the training and capacity building needed to successfully implement the provisions of the ESMF; (e) address mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances; and (f) establish the budget requirements for implementation of the ESMF.

This ESMF should be read together with other plans prepared for the project, including the Stakeholder Engagement Plan (SEP), the Environmental and Social Commitment Plan (ESCP), LMP, RPF, SA, SRAMP, SD, GBV, SHE/SH guideline.

2. Project Description

The project activities will be implemented under four major components of Pastoral Risk Management for Resilience; Integrated Rangeland Management; Climate Resilience and Livelihoods; and Project Management, ME&L, and Policy Support.

Component 1: Pastoral Risk Management for Resilience (PRMR)*:* This is aimed at enhancing climate-related disaster risk management capacity in the PAP lowlands by strengthening the early warning and response, and climate information systems, and by investing in climate-smart Public Economic Infrastructures (PEIs).

Subcomponent 1.1: Strengthen the Early Warning and Response and Climate Information Systems in Ethiopia's Lowlands

The aim of the subcomponent is to strengthen the early warning and response system and Climate Information Services (CIS) in Ethiopia's lowlands with a focus on "last mile connectivity," to ensure that

early warning messages such as information and advice relating to impending hazards reach the household level across PAP areas.

Subcomponent 1.2: Strengthen the Early Warning and Response Systems and Climate Information Services in Ethiopia's Lowlands. The subcomponent will facilitate the identification and prioritization of, and selectively support and fund, a range of investments in climate-smart PEIs, that is, physical infrastructure that can help mitigate the impacts of climate-related (and other) hazards on PAP systems and communities. Eligible climate-smart PEI investments include construction, upgrading and or rehabilitation of: (i) water resources both for human and livestock consumption (such as deep water, small, and micro dams); (ii) small-scale irrigation schemes (including solar and drip irrigation technologies) (up to 500 hectares), (iii) all-weather feeder roads; (iv) cold chain and feed store; (v) livestock market facilities, and veterinary service facilities, and (vi) wetland management and flood management measures.

Component 2: Integrated Rangeland Management (IRM): this **c**omponent is aimed at improving the productivity and health of lowland rangeland resources using participatory, integrated, nature-based, and climate-smart approaches. As a result, healthier and more productive rangelands, in turn, will increase livestock productivity, PAP households' livelihoods, and overall, PAP systems' resilience. This will be achieved by supporting: (1) participatory rangeland and pasture management; (2) rangeland health monitoring and institutional capacity building; and (3) conflict management relating to access to key natural resources and renewable energy. Under this component, the project will leverage selected research outputs and innovations generated by the "Accelerating Innovations by CGIAR on Climate Research in Africa" (AICCRA) project on feed and lowland pasture management, among others.

Subcomponent 2.1. Rangeland Health Monitoring and Institutional Capacity Building

The subcomponent will support a) rangeland Monitoring system (RMS), and b) capacity building for rangeland management institutions. The RMS support will be on financing the operationalization and further strengthening of the national Rangeland Monitoring System within the MoA with the help of the ATI. The capacity building support will strengthen the capacity of rangeland management institutions, including existing and newly established rangeland management committees (RMCs) and customary institutions with targeted and need based capacity building trainings.

Subcomponent 2.2 ***Participatory Rangeland and Pasture Management***

This subcomponent will support: (a) rangeland management plans (RMPs), (b) rangeland and pasture development interventions, and (c) production and marketing of forage and feed. This will be done by financing the updating of the existing 28 rangeland management and investment plants (RMIPs) following the principles and procedures of participatory rangeland management (PRM) to identify additional climate-smart and nature-based solutions (e.g. Enclosure of degraded lands to enable their natural regeneration, the conservation of endangered plant species and management of alien invasive plants, and the plantation of multi-purpose trees on pasture); validate their feasibility based on indicative land-use planning and characterization. Guided by the participatory and integrated RMPs, the subcomponent will support the implementation of a package of inclusive climate-smart, nature-based, and sustainable rangeland and pasture development activities with the main purpose of improving the productivity of rangelands. Guided by the fodder and feed value chain analysis carried out under LLRP I, the project will promote the commercialization of fodder production and it's marketing in a variety of ways.

Subcomponent 2.3. Resource-Related Conflict Management and Mitigation

This subcomponent will equip PAP stakeholders with tools and capacities to address the resource-related root causes of community-based conflict in PAP areas. Given the significant role of women in peace building, the project will ensure active participation and representation of women in the process. It will do this primarily by (a) empowering communities to analyze conflict and engage in dialogue and resource planning; (b) supporting policy reform; and (c) promoting green energy sources.

Component 3: Climate Resilient and Sustainable Livelihoods (CSRL): this component aims to increase, diversify, and stabilize the incomes of PAP households, with focus on agro-pastoralists and those moving out of the pastoral system. It will support: (1) livestock and crop productivity and climate resilience; and (2) commercialization and diversification of crop and livestock value chain activities.

Subcomponent 3.1. Support Livestock and Crop Productivity and Climate Resilience

This subcomponent will finance a range of activities that promote gender-sensitive and climate-smart technology that increases the production and productivity of crops and livestock and reduces the GHG emissions including carbon intensity of livestock. (i.e., reducing the GHGs emitted over an animal's lifespan, and/or per unit of livestock product, meaning per kilogram of meat or liter of milk). This will be done by preparing SMARTPACKS (livestock and crop technologies) for different locations and transferring with appropriate trainings. The sub-component will promote **Nutrition sensitive Agro-pastoralism** (climate smart technologies in crop Smart pack to increase crop production and yield per unit area) and **Livestock Smart pack** (breed diversification and improvement, one health and animal health; improved feed, forage, pasture and fodder resources; husbandry or herd management; and market linkage).

Subcomponent 3.2. Livelihoods Diversification, Commercialization of Crop and Livestock Value Chains

This subcomponent supports the diversification of PAP household's incomes and commercialization by supporting the development of crops and livestock value chains including live animal (including camel), red meat, milk, hide and skin, fodder, honey, gum & resins, and other value chains. It will do this through support for (a) linking producer groups with off takers, processors through productive alliances, (b) access to finance (support for PASACCOs), and (c) market access and linkages. The first will support private sector initiatives driving commercialization and diversification (MSEs with a target of engaging 50 % women). The second will provide financial support to climate smart farm inputs, mechanization services, and other productive equipment by creating access to financial services by MFIs, DBE and CBs, and interest free finances. The third one will support market infrastructure and market access in close coordination with subcomponent 1.2, under which market facility and transportation(road) upgrade investments will be undertaken, and Component 4, under which national standards for market facilities will be updated.

Component 4: Project Management, ME&L, and Policy Support: this component is designed to handle (1) project management, evaluation, and learning (ME&L), and (2) knowledge management and policy engagement.

Subcomponent 4.1. Project Management and Monitoring and Learning (ME&L)

This subcomponent will handle project management as well as ME&L. In relation to project management, it will: (i) facilitate institutional coordination and partnerships among ministries and nongovernmental and international organizations; (ii) strengthen the capacity of PCUs at the federal, regional, and Woreda levels to recruit and manage human resources; (iii) engage in project planning including by generating annual work plans; (iv) develop and oversee project implementation procedures and processes including all aspects relating to fiduciary oversight and management of environmental and social risks; and (v) monitor project implementation and outcomes. At least 20 percent of the technical positions at all levels of the LLRP II PCUs shall be held by female experts, for which appropriate affirmative actions need to be put in place in the PIM rules and procedures.

Subcomponent 4.2. Knowledge Management and Policy Support

This subcomponent aims to strategically make use of the learnings and knowledge generated by the project to initiate discussions among all stakeholders to raise issues, share and understand perspectives and orchestrate common grounds and consensus leading to policy imperatives, solutions, and strategic approaches for pastoral and agro-pastoral development. In relation to knowledge management, the subcomponent will, among other things: (i) carry out studies of direct relevant to project activities; and (ii) support the establishment of a national level think tank and policy platform on lowlands development

in general with focus on climate change and livelihood resilience among PAP communities, which will sponsor academic policy research and create a space for national-level policy dialogue on pertinent issues.

Project location and implementation arrangement

The project will be implemented in the climate-affected PAP areas of 8 regions, including the 7 regions covered under LLRP I such as Afar, Benshangul-Gumuz, Gambella, Oromia, Somali, South Ethiopia, and Southwest Ethiopia and the Dire-Dawa administrative region. The project will benefit about 3 million people in about 600,000 households, residing in 120 Woredas of the implementing regions.

The implementation arrangement combines the administrative layers existing in the country with thematic focus and the geospatial considerations of the rangeland resources. The MILLs will be the lead implementing agency. The Project Coordination Units (PCUs) for LLRP I will continue to support LLRP II with additional experts on DRM, water engineering and capacity building. The implementation arrangement will achieve collaboration and partnerships with implementing partners which include Ministry of Agriculture, ECC, EIAR, EDRMC, EMI, and ATI. The project envisages technical collaboration with international organizations operating in the country to ensure state of the art technology transfer and innovations. This includes the CGIAR institutes such as ILRI, ICARDA, CYMYT, ICEPI, and CIAT.

3. Environmental and Social Policies, Regulations, and Laws

3.1 Ethiopian Legal Framework

The Environmental and Social risks and impacts, which may be anticipated during the design and implementation of sub-project activities under the LLRP II shall be addressed in the framework of the provisions in the relevant national policies, regulations and laws described in the Table below.

Table 3. Ethiopian Relevant Legal Framework

Law	*Description and Relevance to Project Activities*
FDRE Constitution 1995	Environmental rights are enshrined in articles 43, 44 and 92. The articles state that citizens have the right to improved living standards and to sustainable development, and to participate in national development, and to be consulted with respect to polices and projects affecting their community. GoE shall endeavor to ensure that all Ethiopians live in a clean and healthy environment, and development programs shall not damage environments; and people have the right to full consultation and expression of views in the planning and implementation of projects that affect them directly
Environmental Policy of Ethiopia 1997	Requires adherence to principles of sustainable development, and the need to ensure that Environmental Impact Assessment considers impacts on human and natural environments; it provides for early consideration of environmental impacts in projects and programs design; recognizes public consultation; includes mitigation and contingency plans; provides for auditing and monitoring; and is a legally binding requirement.
Biodiversity Conservation and Research Policy 1998	Provides comprehensive provisions on the conservation and sustainable utilization of biodiversity, underlines the requirements for implementers of projects engaged in biological resource utilization to adopt and follow ESIA procedures during planning and operational phases of projects
Ethiopian Water Resources Management Policy, 1999	Underlines ensuring access to water for everyone fairly and in a sustainable manner, protection of water resources and sources, and promotion of cooperation for the management of river basins. The Policy also requires water resources schemes and projects to have ESIA and Evaluation.
Health Policy of Ethiopia: 1993	Underlines that emphasis should be given to prevention and control of communicable diseases, epidemics and diseases related to malnutrition and poor living conditions; the promotion of occupational health and safety; the development of environmental health; the rehabilitation of the health infrastructure; and the development of an appropriate health services management system.
National Policy on Women: 1993	The policy underlines the need for establishing equitable and gender sensitive public policies that empower women, especially in education and property rights, and engaging them in decision making. Improving healthy working conditions, ensuring access to basic services, protecting woman from harmful traditional practices are among the emphasized key issues.
National HIV/AIDS policy, 1998	Designed to create enabling conditions for establishing effective preventive and control strategies in order to prevent the spread of HIV/AIDS epidemic encouraging government sectors, non-government organizations, the private

	sectors and communities to take measures in order to alleviate the social and economic impacts of the epidemic.
The National Social Protection Policy 2014; and Strategy 2016	Aimed at providing an overall social protection system and creating an enabling environment in which Ethiopian citizens have equitable access to Social Protection services that will enhance inclusive growth and development, and promotes non-discrimination.
National Policy and Strategy on Dis.Risk Managet: 2013	Aimed at reducing dependency on and expectations for relief aid by bringing attitudinal change and building resilience of vulnerable people, and to ensure that disaster risk management is mainstreamed into development plans and programs across sectoral institutions and implemented at all levels.
National occupational health and safety (OHS) Policy and strategy, 2008	Article 42/2 of the Constitution states "workers right for healthy and safe work environment" Proclamation No. 4/1995. National Occupational Health Policy and Strategy, Occupational Health and Safety Directive (2008), Occupational Health and Safety Policy and Procedures Manual, and On Work Occupational Health and Safety Control Manual for Inspectors (2017/18). OHS promotion in National Health Policy Statement (1993). Ministry of Labor and Skill (MoLS) and regions have OHS & Working Environment Department responsible for OHS.
Gender Based Violence Proclamation No. 1097/2018	Bestows powers and duties to the Ministry of Women and Social Affairs (MoWSA) to “design strategies to effectively prevent and take measures against gender-based violence against women; implement same in collaboration with relevant organs; facilitate the setting up centers for provision of holistic health, psychological, legal and rehabilitation services for women who were victims of violence; and follow up the implementation of same
Labor Proclamation No.1156/2019	The proclamation provides overall requirements for labor and working conditions (leaves, salary, women employment, child labor, etc.) as well as occupational health and safety requirements and conditions at the workplace. More detail provisions are outlined in the LMP prepared for the proposed program
EIA Proclamation (No. 299/2002)	ESIA is mandatory for specific categories of projects implemented either by public or private sector and implementation of any project that requires an ESIA, and is subject to an authorization from the federal Environmental Protection Authority (EPA) or from Regional Environmental Agency (REA). Get environmental clearance from relevant environmental agency before implementation.
Environnemental Pollution Control Proclamation No. 300-2002	Promulgated with to eliminate or mitigate pollution as an undesirable consequence of social and economic development activities. The main objective of the proclamation is to provide basis for the set-up of standards on protection of ambient environmental quality in Ethiopia and to endorse the respect of these standards.
Establishment of Environmental Protection Organs (Proclamation No. 295/2002)	Distributes mandates to separate organizations for environmental development and management activities on one hand and environmental protection regulations and monitoring on the other hand, in order to ensure sustainable use of environmental resources and avoiding possible conflicts of interest and duplications of effort.
Ethiopian Water Resources Management Proclamation, No. 197/2000	Aims to ensure water resources of the country are protected and utilized for the highest social and economic benefits; demands to follow up and supervise they are duly conserved, harmful effects on water are prevented, and management of water resources is carried out properly.

Solid Waste Management Proclamation No.513/2007	This proclamation sets the rules for sustainable management of wastes in order to achieve social and economic development out of projects and preserve nature and protect environment. The Program will generate waste that will need to comply with this proclamation in relation to it onsite management, storage, collection and final disposal.
Industrial Pollution Regulation (Reg.No.159/2008)	This regulation directed to industry and in particular "factories". The regulation does not provide a clear definition of "factories"; however, certain sections of the regulation can be deemed applicable to the proposed project e.g. the livestock marketing infrastructure, cold chain storages, and the need for monitoring of environmental safety.
Hazardous Waste Management and Disposal Control Proclamation No. 1090/2018	It has provisions on how create a system for the environmentally sound management and disposal of hazardous Waste; and how to prevent the damage to the human or animal health, the environment, biodiversity and property due to the mismanagement of hazardous waste.
Public Health Proclamation No.200/2000	The proclamation forbids the discharge of untreated liquid waste generated from septic tanks, seepage pits and industries into water bodies, or water convergences. It also prohibits the disposal of solid or liquid or any other waste in a way which contaminates the environment or affects public health.
Pesticide Registration and Control Proclamation (Pro.No.674/20 10)	The proclamation aims to regulate the manufacture, formulation, import, export, transport, storage, distribution, sale, use and disposal of pesticide. The proclamation provides mandate to the former MoA for registration and approval of pesticide, and no pesticide shall be registered unless the efficacy, safety and quality is tested under field or laboratory conditions and no person may formulate, manufacture, import, pack, re-pack, label, sell, distribute, store or use a pesticide not registered by the Ministry
Industrial Chemical Registration and Administration Proclamation No.1075/2018)	This law is applicable and demands ppreventing and controlling the adverse effects to the human and animal health as well as nearby environment due to the transaction of industrial chemicals and mismanagement settings. This regulation is applicable as the proposed project is likely to use agrochemicals and other industrial chemicals in construction and irrigation agriculture
Proclamation No. 209/2000 Research and Conservation of Cultural Heritage	The proclamation was decreed to carry out a scientific registration and supervision of Cultural Heritage so that, Cultural Heritage, as bearing witnesses to history, may be handed down from generation to generation; to protect Cultural Heritage against man-made and natural disasters; to enable the benefits of Cultural Heritage assist in the economic and social development of the country; and to discover and study Cultural Heritage.
Public Health Proclamation No.200/2000	The proclamation forbids the discharge of untreated liquid waste generated from septic tanks, seepage pits and industries into water bodies, or water convergences. It also prohibits the disposal of solid or liquid or any other waste in a way which contaminates the environment or affects public health.

The labor Proclamation No. 1156/2019	The proclamation was decreed with the intention of creating conducive working environments for the laborers/workers in Ethiopia. The Proclamation bestowed responsibility upon the employer for the creation of good working environment for the employees. By the content of the proclamation, the employer will take all the necessary measures to safeguard the health and safety of the workers. The new Labor Proclamation also intends to form durable industrial peace, sustainable productivity and competitiveness that will contribute to the overall development of the country.
Proclamation No. 1161/2019: Expropriation of Land	Gives priority rights to develop Land for the Landholders when the capacity of the Landholders to develop the land as per the approved land use plan; urban structural plan; or development master plan is presented. It states, "Landholders whose holdings are within the area prescribed to be redeveloped shall have priority rights to develop their lands according to the plan either individually or in a group" (Article 7, sub-article 1-2).
Directive No.1/ 2008-17: Directive Issued to Determine Projects Subject To Environmental Impact Assessment,	The directive was issued to identify and list out those investment projects subject to mandatory Environmental Impact Assessment. The regions are entitled to issue similar directive to their own specific cases based on this directive. Extensive list of project types requiring ESIA are provided in this directive
Regulation No. 472/2020: on Expropriation and Valuation and Compensation and Resettlement	The FDRE Council of Ministers Regulation No. 472/2020 on Expropriation and Valuation and Compensation and Resettlement was issued. The regulation provides the basis for compensation of affected properties. It also assists the displaced or affected persons to restore their livelihood.
Protocol on Workplace Response to COVID-19 in Ethiopia 2020	Issued by MoWSA, the protocol outlines workplace response to coronavirus COVID-19, aims at preventing COVID-19 in the workplace and mitigating the socio-economic impacts of the pandemic on workers, employers and the overall economy of the country.

3.2 National Environmental and Social Assessment and Permitting

The federal EPA has overall responsibility for the national SEA/ESIA system and is the lead agency for federal or trans-regional projects. For ESIA processes managed by the EPA, regional environmental authorities are to provide input on a range of considerations, including the adequacy of the terms of reference (TOR), the environmental and social impact statement (ESIS), and the monitoring plan. Regional authorities in turn have the responsibility to "adopt and interpret'' federal ESIA guidance within their region and oversee the ESIA process for projects with only regional jurisdiction.

Proclamation 295/2002 requires regional states to establish or designate their own REPAs. Regional Environmental Protection Bureaus/Offices have been established in almost all the regions. The REPAs are responsible for coordination, the formulation, implementation, review, and revision of regional conservation strategies as well as environmental monitoring, protection, and regulation (Article 15). Relating to ESIA specifically, Proclamation 299/2002 gives regional environmental agencies the

responsibility to evaluate ESIA reports of projects that are licensed, executed, or supervised by regional states and that are not likely to generate interregional impacts. REPAs are also responsible for monitoring, auditing, and regulating implementation of such projects.

3.2.1 Screening, Risk Classification and Clearance

The environmental and social screening of the subprojects in the LLRP II should be made by MILLs/FPCU and RPCU. The steps of the environmental and social screening process will lead towards the review and approval by the Federal Environmental Protection Agency (FEPA) or the regional bureaus of environment for every sub-project activity under components 1, 2 and 3. The assessment and identification of environmental and social impacts associated to the specific sub-project activities is important during the project studies to avoid sensitive areas and take steps to ensure that projects stay environmentally and socially sustainable and sound. Every sub-project to be financed by the LLRP II project will be subject to E&S screening.

The screening process will use the checklist shown in Annex 1. This will guide in identifying key environmental and social risks and impacts, prior to the project design in connection with implementations of sub-project activities. The Environmental and social screening checklist asks key questions on matters that are of environmental and social importance to the project and will be completed by filling out responses to the questions. Adverse impacts of the sub-project activities on the local environment or to the community can be minimized through changes in the project design and/or the use of mitigation measures to avert and reduce or mitigate the negative effects.

(i) Step 1: sub-project identification: the MILLs/FPCU through the institutional structure will identify the sub-projects in consultation with beneficiary communities, local administration and Woreda level experts involving in the project implementation.

(ii) Step 2: sub-project preparation: the studies of the identified projects and preparation of the designs can be conducted by independent consultants, experts from the implementing partner sector offices in consultation and coordination with the FPCU.

(iii) Step 3: Screening of sub-projects and risk classification: this is a critical step in the ESMF implementation. This screening is done to determine whether a sub-project requires ESIA and preparation of an ESMP, Environmental and social audit report, and the level of assessment of the E&S risks. The result of the screening will also inform if a sub-project requires preparation of RP in case of land acquisition. Those proposed sub-projects prepared in the annual operational plan will have to be specified by location and sufficient description.

The E&S specialists of the LLRP II project from the FPCU together with the experts from the sector offices will conduct this screening. Conducting field visits to the subproject site and developing an understanding of the biophysical and social environments including existence of sensitive environment around the project site is essential to appraise how the subproject activities will affect the environment and communities.

The screening technique focuses on those subprojects with potentially adverse environmental impacts or whose impacts that are not fully known. Thus, appraisal of the subproject site and having adequate level of information about future subproject activities is essential to anticipate, identify and examine the magnitude of potential environmental impacts which is necessary for conducting the screening exercise.

The project implementers and the E&S specialists at Woreda level will be supported by the experts from the FPCU and the Woreda Environment protection office to conduct the screening. The E&S

screening process will be done in accordance with the principles and requirements of the WB ESSs and the relevant E&S categorization provisions given in the ESIA guideline of the country.
The overall residual risk of the LLRP II project is rated "**Substantial**" because of the multiple and complex nature of the project with respect to political governance and Security, technical design, fiduciary and the E&S risks. The ESIA guideline (2000) categorizes projects into three different 'schedules' based on the potential risks/impacts.

- ✓ *Schedule 1*: Projects which may have adverse and significant environmental impacts, and may, therefore, require full ESIA
- ✓ *Schedule 2*: Projects whose type, scale or other relevant characteristics have potential to cause some significant environmental impacts but not likely to warrant an environmental impact assessment.
- ✓ *Schedule 3*: projects that would have no impact and does not require environmental assessment

The LLRP II sub-project, particularly from components 1,2 and 3, will likely have different levels of risks from high to substantial. According to the WB ESF, all subprojects are subject to environmental and social screening and risk classification, after the type, scope and location of the subprojects are defined as per the procedures described in Annex 1.

Eligibility screening: those sub-project that cause significant harm to cultural and heritage sites, religious and sacred sites, cause physical damage to natural habitats, sanctuaries, etc… (as described in the exclusion criteria in Table 8) will be ineligible and will be excluded from financing.

Sub-projects of substantial concern: those sub-projects that are of substantial environmental and social concern will be further screened with a checklist to categorize the risk levels (schedule 1, 2 or 3 and/or no risk, low, medium, high) as per the descriptions in the EIA guideline and the checklist

Sub-projects that need special attention: those sub-projects that require special attention because of the substantial risk they pose, will be identified and will be subjected to further screening by the EPA experts and the necessary documents (ESIA and ESMP) will have to be required.
After reviewing and compiling of the screening reports, the FPIU and FPCU, will submit the reports to the Federal EPA or the regional EPAs for official review and subsequent approval. The report screening report will include the list of the sub-projects and the adverse impacts, categorization of the sub-projects according to the level of risks, sensitivity analysis of the project site, the level of the public interest, the institutional arrangement, environmental management and monitoring considerations.

(iv) Step 4: Review and appraisal of screening reports by FEAP, REPA, WoEPA: the review will be done by E&S safeguard experts and review results will fall into (a) approval of the sub-project risk classification and recommended implementation; (b) seek for amendments and/or request for change on sub-project categorization; (c) reject the document with comments as to what is required to submit acceptable report.

After review and approval of the report, the screening will classify the proposed subprojects into one of schedule 1 (high risk), schedule 2 (substantial/moderate) and schedule 3 (low risk). Those subprojects falling under high-risk classification, they will not be eligible for financing by the LLRP II and will not be preceded, and may be rejected. However, it may be subjected to redesign, re-routing or resizing so as reduce the risk to substantial level, in order to avoid or reduce the anticipated potential adverse E&S related risks and impacts.

Schedule 1 or High-Risk Subprojects: these refer to those sub-projects that are complex, large to very large scale and those located in sensitive areas. The overall risk rate of the LLRP II project is substantial,

so that high-risk sub-projects shall be screened out and redesigned or routing must be implemented for them. The change need to be required avoiding unwanted adverse impacts and risks such as:

- ✓ Impossibility to drain run-off water from the water point site;
- ✓ Impacts on inhabited dwellings;
- ✓ Potential adverse impacts on naturally sensitive areas;
- ✓ Impacts on Cultural Heritages;
- ✓ Impacts on land use and/or users;
- ✓ Intensive or complex involuntary resettlement or land acquisition
- ✓ Impacts on cultural heritage or densely populated urban areas
- ✓ may give rise to significant social conflict, harm or human security risks

If such sub-projects do not fall under the ineligible category/exclusion, the redesign or re-routing will lower the high risk to substantial risk, the environmental and social impact assessment (ESIA)/ environmental and social management plan (ESMP) will be prepared to address the adverse impacts**.**

Schedule 2 "Substantial Risk" Sub-projects: these are sub-projects that are not complex or too large but qualified as medium scale and not located in sensitive areas. Such sub-projects will implement mitigation measures based on the preparation of a separate ESIA/partial ESIA (PESIA) report. Substantial risk subprojects include:

- ✓ some significant risks and impacts,
- ✓ mostly temporary, predictable and/or reversible
- ✓ possibility of avoiding or reversing but with substantial investment and time
- ✓ may give rise to limited degree of social conflict, harm, human security risk;
- ✓ medium in magnitude and/or in spatial extent (medium to large area and population)
- ✓ less severe, more readily avoided/mitigated cumulative and/or trans-boundary impacts
- ✓ medium to low probability of serious adverse effects to human health and/or the environment (with known and reliable mechanisms to prevent or minimize)

Schedule 2 or "Moderate Risk" Subprojects: sub-projects without any significant potentially harming people and the environment and not located in sensitive locations. For moderate risk sub-projects PESIA or ESMP will be prepared. Moderate risk project include:

- ✓ Risks and impacts not likely to be significant;
- ✓ not complex and/or large scale;
- ✓ predictable and expected to be temporary and/or reversible;
- ✓ low in magnitude;
- ✓ site-specific, without likelihood of impacts beyond the project footprint;
- ✓ low probability of serious adverse effects to human health and/or the environment
- ✓ routine safety precautions are expected to be sufficient to prevent accidents
- ✓ easily mitigated in a predictable manner

Schedule 3 or "Low Risk" subprojects: these are sub-projects without any specific type of negative social and environmental risks. A schedule 3 or low risk sub-project will not require any further ESIA assessment. Nevertheless, the WB ESS1 requires all subprojects to be assessed for environmental and social impacts. Schedule 3 or Low risk subprojects include:

- ✓ Minimal or negligible risks to and impacts on human populations and/or the environment
- ✓ Few or no adverse risks and impacts and issues
- ✓ No further assessment after screening

(v) Step 5: Preparation of ES instruments (ESIAs/ESMPs): For those sub-projects classified as substantial risk, ESIA /PESIA will be prepared, while for moderate risk PESIA or ESMP will be prepared. Mitigation measures will be implemented based on an ESMP that will be prepared by E&S experts during the

implementing MILLs/FPCU. A subproject that is considered likely to have only a small number of issues for further investigation may be considered to prepare a simplified or preliminary ESMP, rather than a full ESIA. The purpose of the ESIA preparation is to generate sufficient information on significant impacts, which will be used to determine under what conditions the subproject should proceed. The ESIA will be conducted by the MILLs/FPCU or an independent consultant. ES instruments shall be prepared to bidding construction contracts, in line with ESCP requirements.

The preliminary ESMP can be prepared by the FPCU E&S safeguard experts or their regional counter parts. This ESMP examines the subproject's potential negative and positive environmental impacts and recommends measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. The preparation of the preliminary ESMP will be conducted through a field assessment of the subproject area to identify likely environmental and social impacts; a proposal of possible mitigation measures; an impact analysis and consultations with beneficiaries and affected communities.

(vi) Step 6: Review and Clearance of ESIAs: the FPCU will submit the prepared ESIA and ESMP to the Federal EPA/regional EPA (as appropriate) with an application for review and approval. The documents will be also be submitted to the World Bank for no-objection and further disclosure. The review by the FEPA/REPA will be done as follows:

- ✓ Review of the scope of work as per the terms of reference
- ✓ Review of the draft ESIA/ESMP; and
- ✓ Provide clearance of the final ESIA/ESMP.

The appropriate E&S instruments (ESIAs, PESIA or ESMP) will be reviewed by the World Bank by providing no-objection on the scope of work or the terms of reference and consultant selection; through review of the ESIA in parallel to submission to the FEPA/REPA.

(vii) Step 7: Disclosure : in conformity with the World Banks requirements, the ESIA reports related with Substantial and Moderate risk subprojects will be made available to the public as follows:

- ✓ By availing a copy of the ESIA report including a brief summary of the report in the local language at the implementing Ministry (MILLs)
- ✓ By providing a copy of the full report and copies of the summary in local language to the World Bank country office;
- ✓ By uploading the report on the World Bank website.

(viii) Step 8: Subproject implementation: FPCU will inform the implementing institutions and the beneficiaries to start implementation of the subprograms in accordance with approved subproject document and to act on the decisions and requirements provided by the FEPA and/or the REPA with the approval reports. The Implementation of the E&S mitigation measures will be done in parallel with the project activities and in line with sector guidelines and checklists to be provided. In the implementation Woredas, the MILLs through their regional/local offices, the regional sector offices, the Kebele Development committees and the development agents will contribute to the implementation of the mitigation measures.

(ix) Step 9 – E&S management supervision and monitoring: as per the ESMP monitoring plan, monitoring of implementation of measures and management of the identified risks/impacts must be carried out by the E&S experts of the MILLs/FPCU. External monitoring and supervision by REPAs and Woreda EPAs would be carried out in consultation with and support from the World Bank, to ensure sound implementation of environmental and social risk management instruments. The FPCU ensure and check the performance of the E&S of the project in accordance with the legal agreements, the World Bank ESSs and also ensure that sufficient resources, institutional arrangements, required experts are available to conduct the monitoring activities.

(x) Step 10: Environmental and Social Audit: The FPCU team together with the regional EPAs will conduct an internal social and environmental auditing. Besides internal auditing, the FPCU shall conduct an

independent E&S audit every two years and submit the audit report to project coordinating unit and to the World Bank. The E&S audit is done to determine whether project is in compliance with procedures and guidelines for management of environment and social issues as prescribed in this ESMF and other program safeguard instruments such as the LMP, SEP, RF and SA; to ensure that the mitigation measures are being identified and implemented; to verify if the ESMF process is being implemented according to plan and mitigation measures are being identified and implemented; and if the necessary capacities are there and if training needs met in order to ensure successful implementation.

(xi) Step 11: Project evaluation: project evaluations will be done in the middle and end of subproject implementation. This will be done by the FPCU experts and/or in collaboration with regional experts. The evaluation can also be done by an independent external consultant. The evaluation is focused mainly on the impacts of the project, its management of the social and environmental impacts and other requirements of project evaluation including efficiency, effectiveness and outcomes.

3.3 World Bank Standards and Key Gaps with the National Framework

The project will follow the World Bank Environmental and Social Standards (ESSs), as well as the World Bank Group Environmental, Health and Safety Guidelines. Based on these policies, the environmental and social risk of the project is categorized as substantial considering contextual security and climate disaster risks. The LLRP II is expected to have a range of environmental benefits as it will support the control of invasive plant species in addition to financing rangeland management, energy-efficient technologies, and soil and water conservation measures. However, there are also potential negative environmental, health and safety risks and impacts that could result from the LLRP II activities. Hence, the risk category is substantial. Similarly, the proposed project will have positive social impacts corresponding to its development objectives. However, there are potential social risks due to the nature of the proposed subprojects in the different components. This is largely related to the current instability and political situation in the country. The overall contextual risks encompass conflict and fragility due to the past and present conflict in the country causing accessibility issues as well as potential security and safety risks to project workers. Hence, the social risk category of the project is substantial.

Table 4. Relevant World Bank ESS and Key Gaps with the National Framework

E&S Standard	*Relevance and gaps*
1. Assessment and Management of Environmental and Social Risks and Impacts	ESS1 is relevant for the project because project activities are expected to pose substantial environmental and social risks such as disruption on grazing pattern, livestock movement and overgrazing, soil and water pollution from toxic substances, agrochemicals, soil salinization, nutrient depletion, risks on biodiversity and ecosystems, risk of invasive alien species; and exclusion of vulnerable groups, social tensions/conflicts, security, forced labor, child labor, gender-based violence, etc…The national laws tend to stress on environmental risks and impact assessment and are lenient in the social risks. Associate facilities if any, will be implemented as per the requirement of ESS1 since there is no national legal requirement in this regard. Similarly, environmental liability if any, will be incompliance with the requirement of ESS3 since the national legal framework do not have clear requirement of it. Hence, the ESS1 provisions are upheld.
2. Labor and Working Conditions	ESS2 is relevant for the project because there are certain labor risks for project workers. Labor-related risks include (i) security risks to project

	workers, (ii) traffic and road safety issues, (iii) inadequate terms and conditions of employment, and (iv) occupational health and safety risks. Most of the provisions in the proclamation are consistent with the ESS2. However, the ESS2 broadly and explicitly addresses the conditions of vulnerable, disadvantaged and migrant workers.
3. Resource Efficiency and Pollution Prevention and Management	ESS3 is relevant for the project because sub-project activities are expected to cause ppollutions from any form of industrial/WASH facility effluents, solid wastes generated from construction and health facilities, and other wastes from solar energy materials, use of agro-chemicals in irrigation and veterinary facilities. The national laws equally sufficiently address the risk and its management including management of environmental liabilities.
4.Community Health and Safety	ESS 4 is relevant for the project; ESS4 recognizes that project activities, design and safety, infrastructure, and safety services can increase community exposure to risks and impacts. The project will support construction and operation of small scale irrigation, access roads, flood protection, etc… include construction of dams, which are likely to cause adverse health and safety risks on the local community. The ESS4 broadly addresses the community health risks with detailed requirements to be adhered to. Hence, the ESS4 provisions are upheld in this project.
5. **Land Acquisition, Restrictions on Land Use and voluntary Resettlement;**	The project requires to avoid land acquisition and displacement. However, if unavoidable, the ESS5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons which may cause physical displacement, economic displacement leading to loss of income sources. The project involves construction of infrastructure and hence, may cause minor displacement or access disruption to livelihood sources. Hence, this ESS will be applied. The national law sufficiently addresses the issue, except the issue of voluntary donation of land (VDL).
6. **Biodiversity Conservation and Sustainable Management of Living Natural Resources**	LLRP II involves construction of infrastructure and hence, ESS6 will be applied since activities may affect biodiversity and may be located in areas providing ecosystem services, upon which potentially local communities be dependent for survival, sustenance, livelihood or primary income source. The national ESIA proclamation equally addresses the procedures to avoid the risks and impacts.
7. **Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**	ESS7 This ESS applies to a distinct social and cultural group identified in accordance with paragraphs 8 and 9 of the ESS7. Since the LLRP II activities are to be implemented in regions where underserved communities or groups are residing, this standard shall be applicable. Although all Ethiopians are indigenous, indigenous Peoples are referred to as disadvantaged or Underserved and Vulnerable Groups. In this project, the pastoralist and agro-pastoralists of Afar and Somali meet the ESS7 and hence its provisions upheld.
8. **Cultural Heritage**	ESS8 is relevant because it sets out measures designed to protect cultural heritages throughout the project life cycle and general provisions on risks and impacts to cultural heritage from project activities. LLRP II may cross such heritage sites during construction

	activities and hence, this ESS is applicable. The national legislation addressed broadly provisions of the ESS8 requirements, but chance finds procedure is not considered as an option if no physical cultural site is identified at the early stages. Therefore, all the ESS8 requirements should be upheld
10. Stakeholder Engagement and Information Disclosure	ESS10 is relevant for all projects given the need to engage with beneficiaries and stakeholders on development activities that affect their lives. The national laws on stakeholder consultation plans and procedures are not comprehensive, and disclosure of project information to stakeholder is limited and their views on the risks and impacts are not fully captured. The ESS10 provision of the SEP preparation is more inclusive and hence upheld.

4. Potential Environmental and Social Risk Impacts and Standard Mitigation Measures

The components in the LLRP project are targeted in enhancing natural resources restoration, ecosystem resilience and community resilience through interventions that address rangeland degradation, climate change impacts and livelihood diversification. Thus, the impacts are positive and do not cause potential high risks. The overall risk rating of the LLRP II project is "substantial". There are moderate and potentially negative environmental, social, health and safety risks and impacts that could result from the LLRP II activities. These risks and impacts could result from activities in components 1, 2 and 3 as described below in Table 5.

Table 5. Environmental and Social Risks and Mitigation Measures during implementation and operation

Sub-component Activity	*Risks and Impacts*	*Mitigation Measures*	
Civil works **(small-scale irrigation, access roads, Veterinary clinics/laboratories, Flood control, small and micro dams, cold-chain and feed store, Livestock market facility)**	✓ Disturbance to natural habitats, ✓ Vegetation clearing and biodiversity loss	✓ Adopt the exclusion criteria during site identification and identify alternatives ✓ Avoid locating construction sites around nature reserves or species conservation areas during planning ✓ Conduct careful and suitable site selection/survey through a participatory process for component 1 infrastructures ✓ Design phase of the construction planning should take into account of unavoidable potential damages and plan mitigation measures ✓ Ensure ESIA process has been conducted and proper procedures have been followed ✓ Ensure the negative impacts identified and mitigation measures are prepared with an appropriate ESMP ✓ Ensure there are no sensitive fauna and flora species within and around the construction area ✓ Ensure there is no spill-over effect to the surrounding areas,	

		✓ Conduct planting and re-vegetation of sites to compensate loss of trees and vegetation ✓ Prioritize and minimize impacts or avoid damage to indigenous trees of significant importance, avoid or minimize cutting of big trees (mother trees), particularly indigenous species ✓ Ensure no sensitive species are found and plan accordingly to minimize or avoid the sources of impacts; ✓ In line with the ESCP, when significant risk and adverse impacts on biodiversity have been identified, a Biodiversity Management Plan will be developed based on the indicative outline of BMP template included under Annex 7.	
	✓ Impact or damage to cultural heritage sites	✓ Avoid areas designated as cultural heritages from project activities and maintain sufficient distance of operation from such sites ✓ If project activities cross any designated area of tangible or intangible cultural heritages, find alternatives and rerouting ✓ Protect heritage sites from damage during construction material removal and transport ✓ Comply with the appropriate law governing cultural heritages (Proclamation No. 209/2000) In case of encounters of cultural heritage sites, follow procedures as described in Annex 5 of this ESMF. Furthermore, if significant risk is foreseen Cultural Heritage Management Plans should be developed.	
	✓ Risk of soil erosion initiation	✓ Make sure construction sites are selected as per existing standards and conducted screening procedures for selected site with full	

	✓ Disturbance of soil through excavation, leveling, clearance of surface vegetation exposes soil for erosion. ✓ Transport of goods, equipment and materials, clearing of access roads, transporting of gravel and sand from mining sites will make the top soil vulnerable to water and wind erosion	compliance to national ESIA guidelines and World Bank ESF requirement. ✓ Ensure the appropriate ES instruments are in a place with full consideration of WB EHS guidelines. ✓ Design of the infrastructure should provide sufficient drainage management options so that erosion cannot take place. ✓ Construction should be done in the dry season and scheduling to avoid heavy rainfall periods ✓ Contouring and minimizing length and steepness of slopes. ✓ Mulching to stabilize exposed areas. ✓ Lining steep channel and slopes (e.g. use jute matting). ✓ Re-vegetate the roads vulnerable to erosion and removal of sediment. ✓ Apply road drainage guidelines, GIIP, and controlling flooding risk in line with Bank requirements. ✓ Channel road spillways to natural waterways. ✓ Properly rehabilitate material mining sites (sand, selected materials, etc…) ✓ Avoid or minimize vegetation clearance, excavation and inappropriate disposal of soil ✓ Dump site or appropriate disposal site should be prepared in accordance with the national solid waste disposal proclamation and WB General EHS Guidelines. ✓ Conduct reshaping and rehabilitation of excavated sites, ✓ ✓ Limiting access road gradients to reduce runoff-induced erosion.	

		✓ Providing adequate road drainage based on road width, surface material, compaction, and maintenance. ✓ Depending on the potential for adverse impacts, installing ✓ free-spanning structures (e.g., single span bridges) for road ✓ watercourse crossings ✓ Restricting the duration and timing of in-stream activities to lower low periods, and avoiding periods critical to biological cycles of valued flora and fauna (e.g., migration, spawning, etc.) ✓ For in-stream works, using isolation techniques such as berming or diversion during construction to limit the exposure of disturbed sediments to moving water ✓ Consider using trenchless technology for pipeline crossings (e.g., suspended crossings) or installation by directional drilling. ✓ Segregating or diverting clean water runoff to prevent it mixing with water containing a high solids content, to minimize the volume of water to be treated prior to release	
	✓ Solid waste, generation, disposal, contamination from construction sites, veterinary clinics and laboratories	✓ Comply with environmental standards of national guidelines and ESF requirements on handling and disposal of harmful waste substances from health facilities. ✓ Use recommended waste collection, handling, transport and disposal methods ✓ Store solid waste temporarily on-site in a designated place prior to off-site transportation and disposal.	

		✓ Collect and dispose in legally permitted disposal sites, landfills. Open burning and burial of waste shall not be allowed Incinerate those harmful substances and materials from mobile clinics and health facilities in a chamber prepared for this purpose. If health facilities equipped with their own incinerator plant, it should be carefully evaluated against other technologies and techniques for waste management and disposal system. Furthermore, incinerator should have permits to accept health care waste and be properly operated and maintained by trained employees to ensure proper combustion temperature, time, and turbulence specifications necessary for adequate combustion of waste If the health facilities do not have Incinerators, the construction of incinerators along clinic construction should be considered under the design stage. Secondary air pollution control measures for health facilities waste incinerators need to be considered for both new and existing incinerator. ✓ Adhere to recommended waste disposal practices. Recyclable materials such as wooden plates for trench works, steel, site holding, packaging material, etc., shall be segregated and collected for recycling. ✓ All contractors will be required to develop a waste management plan as per national guidelines, standards and as per the World Bank's Environmental, Health, and Safety Guidelines.	

		✓ Follow the ***Environmental and Social Management Plan (ESMP) included in Annex 3 and Waste Management Plan incorporated under Annex 9.***	
	✓ Soil contamination	✓ Demarcate construction sites away from cultivated fields and prevent flow and disposal of liquid and solid wastes to agricultural fields ✓ Follow appropriate waste handling practices for harmful chemicals ✓ Select waste collection sites away from agricultural fields and avoid contaminations ✓ Soil and stones excavated during construction should be disposed in areas permitted by municipality/authority ✓ Avoid informal routes by dump trucks during disposal ✓ Execute management measures for environmental liabilities and soil remediation activities where needed in line with WB General EHS guidelines environmental contaminated land	
	✓ Noise pollution from machineries, trucks	✓ Adhere to the environmental standards set by the relevant authority ✓ Implement Noise pollution mitigation measures based on the developed OHS plan in Annex 10. ✓ Reduce or avoid loud horns around residential areas and around clinics ✓ Reduce or avoid usage of machines for minor activities that can be done with human labor ✓ Apply or adhere to work place code of conduct for construction workers to reduce unwanted noise ✓ Minimize the movement of vehicles around residential and commercial areas	

		✓ Unavoidable noise causing activities should be restricted to the day-time and working hours ✓ Machine or equipment producing high levels of noise should be avoided or screened when working within close proximity to any sensitive noise receptors; ✓ Apply installation of portable barriers and fence off the construction site to isolate the sources of noise ✓ Switching off engines of machines and equipment when not in use to avoid noise emission; ✓ Siting permanent facilities away from community areas if possible. ✓ Taking advantage of the natural topography as a noise buffer during facility design	
	✓ Air pollution from dust from construction activities	✓ To reduce dust, use appropriate construction site management guidelines (e.g., sprinkling the surface with water to minimize dust blow during construction and rehabilitation) ✓ Reduce movement of vehicles during rush hours, public events, school hours ✓ Use manual labor to avoid use of machines for minor activities that can be done with human power ✓ Dust control and suppression measures including regular application of water on or near construction sites, settlement areas to ✓ Reduce dust generation by practicing traffic speed limits ✓ Use water spray trucks regularly in areas near construction sites and settlement areas especially in windy and dry weather to reduce dust generation,	

		✓ Avoid open burning of debris, cut vegetation (trees, undergrowth) or construction waste materials; ✓ Ensure regular maintenance of vehicles, machinery and equipment used at project site and ✓ Enforce and practice traffic speed limits	
	✓ Pollution of surface and ground water sources from potentially toxic substances including pathogens, toxic metals (e.g., arsenic), anions (e.g. Nitrate), and other organic compounds from construction sites	✓ Adopt and adhere to guidelines for pollution control ✓ Use the recommended methods of waste containment (collection, storage and transportation) and equipment ✓ Construction wastes should not be damped to riverbeds ✓ Waste products (liquids, particles and solid waste) should be dumped to the area where engineered landfills in accordance with WB ESF requirements and follow waste handling mechanism incorporated under Waste Management Plans (WMPs) of Annex 9. ✓ Use appropriate wastewater drainage system leading to separate septic tank ✓ Proper handling, utilization, storage, transport and disposal of both solid and liquid wastes ✓ Abide by recommended waste disposal practices and guidelines, laws and regulations ✓ Implement Waste Management Plan included under Annex 9 and ensure its incorporation under site-specific contractor ESMP accordingly.	
	✓ Risk of poor occupational health and safety	✓ Conduct OHS risk assessment and follow OHS mitigation hierarchy as specified in the OHS template in Annex 10 of this ESMF document	

	(exposure to physical hazards, biological hazards, and chemical hazards)	and in the Annex 2 of Labor Management Procedures (LMP) of this project. ✓ Use appropriate personal protective equipment (such as safety glasses, respirator, safety boots and shoes, chemical-resistant gloves and apron, face masks as necessary and make first aid kits available at construction sites and work places. ✓ Conduct awareness trainings including on the use of PPE for the safety of construction workers. ✓ Provide protective clothing and firefighting equipment ✓ Provide appropriate warning signs for staff and public. ✓ Contractor should utilize occupational health and safety (OHS) plan included under Annex 10 as guidance for preparing site-specific OHS management plan for managing OHS issues. ✓ Use and apply WB EHS Guidelines Health Care Facilities, standards and procedures for human Health Care Facilities (clinic) and international standard for animal clinics/ laboratories. ✓ Ensuring that the developed guidelines and standards are properly implemented	
	✓ Road accidents or fatalities from increased movement of vehicles	✓ Apply all required road safety measures including installing appropriate signs, signals and warnings ✓ Install traffic controllers in place during work hours ✓ Prepare and apply a traffic management plan detailing traffic control procedure,	

		✓ Train staff and personnel on traffic management procedures, travel speed limits and control measures; ✓ Impose and enforce compliance with company speed limits for other uses of the roads in construction sites; ✓ Minimize or avoid safety hazards and inconvenience to other road users, the may result from hauling vehicles, ✓ All drivers should be trained on road safety and checked for discipline and adherence to rules	
	✓ Risk of accidents to local community and project workers	✓ Enforce/implement measures related to traffic accident prevention and safety ✓ Construct speed breakers to reduce speed of construction vehicles to acceptable level (around schools, settlements and high pedestrian traffic areas) ✓ Provide barriers or exclusion zones around sites where machines and trucks are operated as part of the construction process ✓ Train the construction crew on safe driving to protect the community in the construction area ✓ Follow all traffic rules when sub-project vehicles and trucks are using main roads and highways. ✓ Provide safety signs to local community the damager ahead.	
Small scale irrigation dam construction	✓ Possible failure of small dam structures (no large dam will be financed)	✓ Comply with the exclusion criteria during construction site selection in line with ESF requirements on dam safety for small dams. ✓ Comply with design standards specified under Good Practice Note on Dam Safety Technical Note 4, and quality for construction of small dams	

		✓ Engage experienced and competent professionals for the supervision of the design and construction of new dams ✓ Adopt and implement dam safety measures during design, bid tendering, construction, operation and maintenance of the dam and associated works ✓ Comply with national design and construction standards and WB ESF requirements ✓ If the dam causes safety risks such as an unusually large flood-handling requirement, if location is in a zone of high seismicity, and small dams with safety risks follow same requirements for large dams which are excluded from financing. ✓ Ensure proper procedures are followed for the recruitment and selection of design consultants and construction firms ✓ Implement and adopt the ESIA guideline in identifying the risks and impacts of the dam structures; ✓ Ensure monitoring activities and risk analysis are properly conducted, reported and addressed during design, planning, operation and evaluation ✓ Prepare a site and sub-project specific ESMP and implement mitigation actions; ✓ Prepare emergency and preparedness plan for any such eventualities	
Small scale irrigation water use	✓ Risk of Soil salinization development; water consumption	✓ Assess hydrological assessment, including water balance prior to irrigation development. ✓ Water efficient technology has to be deployed (e.g., drip irrigation instead of open furrow irrigation, flood irrigation)	

		✓ Manage timing of irrigation to minimize evaporation loss and to prevent salinity development ✓ Avoid or reduce removal of biomass from irrigated fields to reduce water loss and increase organic matter content of the soil ✓ Regulate water abstraction and operation based on allocated quota ✓ Install sub-surface drainage channels to remove excess water; ✓ Promote intercropping, use soil amelioration methods	
	✓ Risk from pesticide use and management (although the project will not finance any pesticide),	✓ Prepare and properly implement IPMPs, ✓ Use Integrated Pest Management Guideline (IPMG) incorporated in Annex 6 as a good practices to control pests. ✓ Select pesticides with approval and application standard ✓ Consider the weather when applying pesticides and avoid very hot or windy days ✓ Pesticide containers must be collected from farmers and safely disposed in the proper place and never be reused. ✓ Use adequate PPE when applying pesticides or nearby application zones of pesticides ✓ Ensure that all equipment is in good condition and properly calibrated to apply the correct dosage. ✓ Dispose of obsolete pesticides, comply with prescribed doses ✓ Promote organic manure and other conservation agriculture practices ✓ Provide awareness creation and training on the use of agrochemical inputs	

New water supply schemes from groundwater	✓ Unmanaged local livestock movements and ecologically destabilizing overgrazing	✓ Water users' association (WUA) has to be formed and utilization of water and grazing in the surrounding areas should be managed by the water committee ✓ A bylaw shall be prepared, endorsed by all water users and abide by the provisions and liabilities in case of violations ✓ Livestock numbers, movement routes and grazing areas (resting areas) need to be identified, period of resting defined and strictly administered by the WUA bylaw ✓ Restrictions on access to grazing areas shall be determined by the community and overseen by the WUA committee	
	✓	✓	
	✓ Risk of competing needs for water (livestock, humans, and environment)	✓ Put in place appropriate water allocation plans from the design and planning stage ✓ Effectively engage all stakeholders on the activity and on the management of the water to meet the different demands/needs ✓ Develop bylaws that defines access rights to communities, and which is agreed by all stakeholders to administer the water use ✓ Establish a system in consultation with beneficiaries to manage the allocation of water for irrigation, livestock, people and other needs	
Irrigated farmland and irrigated pasture development	✓ Animal disease outbreaks; threats to biodiversity and the environment as a result of expansion of	✓ Adhere to quarantine procedures when introducing new species of plants and animals (with approval from competent authority) ✓ Exert caution not to introduce invasive species to the site ✓ Conduct an appropriate ESIA and prepare project specific ESMP to address anticipated risks	

	farmlands and pasture from irrigation	✓ Conduct regular monitoring of health status of newly introduced species and local breads; ✓ Report immediately to local vet experts on incidences of unusual sickness of the new breeds or local breeds; ✓ Isolate affected animals until proper diagnosis is done and measures are taken	
	✓ Depletion of groundwater due to excessive withdrawal causing malfunctioning of pumps	✓ Put in place operational manuals and guidelines to facilitate proper operation of water points ✓ Train and provide necessary equipment to water point operators ✓ Provide limits of extraction to users and operations per regular operational hours and quantity ✓ Monitor ground water levels to avoid the risk of early depletion of discharge potential	
Energy-efficient technologies (Solar panels for pump operations, solar home systems and village powering)	✓ Visual obstruction and intrusion ✓ Land use/installation site ✓ Risk on biodiversity and Ecosystem ✓ Accidental releases of chemicals from storage devices, solar sets, worn-out batteries	✓ Use in isolated and deserted areas where there is little visual obstruction ✓ Avoid installations on areas of high importance for local communities (grazing land, pasture land, cultural heritage sites, etc…) ✓ Avoid sensitive ecosystems and areas of natural beauty and biodiversity values; ✓ Avoid ecologically and archeologically sensitive areas; ✓ Manage release of potentially toxic and hazardous materials with the adoption of existing safety regulations and WB EHS Guideline. Prepare ESMPs in in line with ESF requirements. ✓ Apply good working practices (use of protecting gloves, sunglasses, and clothing during construction).	

	✓ Risk of poor OHS and hygiene ✓ Pollution to water resources	✓ Conduct proper site restoration during dismantling; maintenance and removal of worn-out solar panels	
Restoration of degraded rangelands through sowing, reseeding, and resting such as community based and temporary enclosures	✓ Restriction of access to humans and livestock ✓ Disruption on movements livestock ✓ Risk of new invasive species introduction during sowing, reseeding	✓ Conduct inclusive and transparent consultation guided by the SEP on the intended actions and ensure community consensus ✓ Provide alternatives routs for livestock movement in case of enclosures along movement corridors, passages to water points ✓ Establish users' association and manage enclosures using bylaws ✓ Use locally collected and/or certified seeds of native species to the site for reseeding purposes	
Development of agro-forestry and agro-silvo-pastoral systems through the plantation and management of multipurpose trees	✓ Risk of bush encroachment to the pastureland ✓ Impact on local and indigenous species and biodiversity ✓ Risk of pest animals and birds ✓ Risk of low adoption of new species by farmers	✓ Introduce only prescribed and selected species by experts and research institutes ✓ Entertain farmers preferences for species ✓ Provide sufficient training to farmers on new species benefits, tending operations, propagation and management ✓ Ensure that species for pasture are less invasive, non-prolific in nature and no negative impact on other lower strata species ✓ Monitor the impact on local and indigenous species, report any negative effect on native plants or animals ✓ Provide training on the multiple benefits of the technology, integration of trees with crops and pasture	

	✓ Reluctance to plant trees in farms and pastures		
Rangeland rehabilitation and management through physical, biological, and agronomic soil and water conservation measures	✓ Risk of child labor involvement ✓ Community health risks ✓ Risk of rodent infestation	✓ Clearly communicate the minimum age for a community labor is 18 years; do not engage young labor as the intensive public works interferes with the child's education and health ✓ Comply with and ensure effective implementation of the LMP ✓ Provide awareness training on OHS before commencement of work, provide PPE ✓ Provide training to contract workers and community labor on risk of communicable diseases (HIV/AIDs; COVID 19, STDs, etc..) ✓ Awareness training on GBV/SE/SH, CoC ✓ Put in place functioning GRM ✓ Use species that disfavor pests/rodents	
Management of invasive species using multiple techniques such as prescribed fire, targeted and selective clearing and de-rooting	✓ Risk of uncontrolled fire hazard; colonization due to favorable condition for seed germination from soil seed bank; ✓ Risk of removal of other useful species	✓ Use guidelines prepared for prescribed fire use and management ✓ Provide training on prescribed fire use and importance of fire breaks as control tool ✓ Use PPEs during burning of the invasive species ✓ Create awareness to community members before starting a prescribed fire ✓ Train and prepare sufficient number of people to control the fire ✓ Avoid starting fire on windy days and in high temperature ✓ Avoid starting a fire in unmanageable size of a landscape so that it can't go out of control ✓ Make sure there are natural barriers or breaks to control the fire (e.g., roads, rivers, and cultivated land)	

Social risks/impacts	✓ Land acquisition	✓ Where possible, avoid or minimize involuntary land acquisition during sub-project identification and implementation ✓ In cases where access restrictions and economic losses occur, adopt and implement procedures outlined in the RF of the LLRP II project. Appropriate compensations have to be made to PAPs in accordance with the laws on compensations and the ESS5 requirements ✓ In cases of minor land acquisition, avoid involuntary resettlements, when possible, to do so ✓ If involuntary resettlements are unavoidable, the principles outlined in the RF of the project should be implemented. ✓ Based on the ESIA and site-specific results, a specific resettlement action plan (RAP) should be prepared and implemented in accordance with ESS5, consistent with the RF	
	✓ Risk of social tensions/ conflicts over resources and access to services such as water points, irrigation facilities, roads, and livestock service facilities	✓ Transparent and inclusive consultations shall be conducted at all stages of the sub-project activity (from identification to operation), as per the SEP ✓ Clan leaders, local administration and community associations shall be engaged throughout the process and fully informed of the sub-activity ✓ Concerns and issues of differences shall be captured and analyzed through the SA and addressed through the SDP; shall be addressed through design alternatives ✓ In case of such incidences, cases shall be observed through existing traditional GRM	✓ ✓

		system, before cases are referred to the KGRC or WGRC ✓	
	✓	✓	
	✓ Security and safety risks to project workers	✓ Contractors should provide security updates to project workers ✓ Report incidences of security problems in timely manner ✓ Secure project site with own security personnel (Guards) and protect workers ✓ Provide awareness creation and training for project workers and security persons ✓ Maintain information exchange on security updates with PUCs and report incidences of serious security threats ✓ Strengthen cooperation with local administration in case of any support needed ✓ Prepared an emergency plan and created awareness to workers on those plans	
	✓ Risk of elite capture as a result of insufficient community and relevant stakeholder engagement	✓ Conduct consultation as per the SEP and ESS5&7 requirements (procedures stipulated in the SEP) ✓ Make sure vulnerable and disadvantaged groups are well represented in different committees, fair representation of different social groups (women, youth, the elderly, disabled, the sick, remote communities) are included in consultations, project benefits and participation in labor	
	✓ Risk of social exclusion and vulnerability of the disadvantaged	✓ Ensure transparent and inclusive consultations during project identification, risk analysis and consultation processes ✓ Ensure project activity designs are considerate of vulnerable and disadvantaged groups	

	and vulnerable groups	✓ Ensure vulnerable and disadvantaged groups are well identified, informed and included in project benefits ✓ Engage and reach out to communities in remote and conflict affected areas through different mechanisms	
	✓ Gender-based violence, sexual exploitation and abuse, and sexual harassment (GBV/SEA/SH)	✓ Provide awareness training to all workers and community members on GBV/SEA/SH) ✓ Educate workers and communities using posters, flyers in local languages about GBV/SEA/SH, during field days, public gatherings ✓ Provide training to workers on GBV/SEA/SH ✓ Prepare code of conduct for all project workers to read, understand and sign for taking responsibility in case of violations rules ✓ Put in place a functioning GRM for workplace complaints at the project site ✓ Address complaints in timely and appropriate manner using the GRM and legal channels	
	✓ Risk of labor influx to project areas	✓ Contractors should provide strict adherence to organizational code of conduct by contract workers ✓ Contract workers and local communities should be provided with training on awareness raising on communicable diseases such as HIV/AIDS, STDs and others including COVID 19 ✓ Cultural sensitization training should be given to workers on how to engage with local community; ✓ Provide guidelines on local culture, behavior and social life to workers	

	✓ Child labor involvement	✓ Clearly communicate the minimum age for a community labor is 18 years; do not engage young labor as the intensive public works interferes with the child's education and health ✓ Comply with and ensure effective implementation of the LMP	
Forage production and livestock husbandry	✓ Small scale GHG emissions due to CDD nature of the activities	✓ Remove aging and large size stock from the herd and replace with small ruminants ✓ Provide highly nutritive livestock/legume feed that minimizes methane release ✓ Manage manure for energy production and sludge for fertilizer	
Financial support to PASACOs for credit service to women and youth	✓ Exclusion of disadvantaged and vulnerable groups	✓ During subproject activities identification and beneficiary selection, conduct inclusive and accessible consultations with community members, community leaders and representatives, and local authorities. ✓ Provide transparent information on project activities, benefits, and eligibility criteria to communities, through accessible channels, relevant ethnic languages. ✓ Proactively identify, consult with, and reach out to disadvantaged and vulnerable groups and households (through surveys, consultations, or other means, as appropriate). ✓ For livelihood assistance activities, include specific measures to address the potential obstacles to access for disadvantaged and vulnerable groups. ✓ Ensure that the grievance/beneficiary feedback mechanism is accessible by disadvantaged and vulnerable groups	

4.1 Risks and Mitigation Measures Specific to Disadvantaged and Vulnerable Groups

The category of disadvantaged and vulnerable groups of people refers to people who may be disproportionately impacted or further disadvantaged by the project (due to age, gender, ethnicity, disability, economic status or extremely poor, illiterate persons) compared to other groups due to their vulnerable conditions. In the LLRP II project implementation areas, the group broadly includes women, children, and the elderly, disabled and chronically ill persons who are limited in their capacity to take advantage of the project development benefits. In conflict affected areas, this group includes IDPs and migrants. Besides, there are disadvantaged communities who are described under ESS7, as those historically underserved local communities in SSA, who are socially marginalized and often far from access to project benefits due to social exclusion, poor representation in governance and lack of participation in development initiatives. Pastoralist communities, because of their mobility, are considered as disadvantaged groups who often miss development project benefits unintendedly due to their mobility. The **disadvantaged and vulnerable groups face disproportionate social risks and** may require special engagement efforts to ensure their equal representation in the consultation and decision-making process associated with the project. The following category summarizes the disadvantaged and vulnerable groups:

- ✓ Historically underserved Communities/groups
- ✓ Pregnant women and lactating mothers
- ✓ Women in male-headed and female-headed beneficiary households
- ✓ Pastoralist households
- ✓ Elderly households
- ✓ Disabled/persons affected by chronic diseases
- ✓ Children
- ✓ Unemployed rural youth
- ✓ People living with HIV/AIDS
- ✓ Economically poor households
- ✓ New residents to the areas/settlers subverted from conflict areas
- ✓ Protracted IDPs
- ✓ Neighboring communities who might be directly or indirectly affected by the project

The major risks they face include the following:

- ✓ Intentionally and/or unintentionally denied access to project information and benefits
- ✓ Discrimination from taking project jobs
- ✓ Exclusion from participation (during consultations) and project activity identifications
- ✓ Exposure to physically challenging tasks, unsuitable for their conditions
- ✓ Risk of exposure to emotional, psychological and physical abuses
- ✓ Rejection or alienation by user association groups (irrigation water users, PASACOs, etc…)

Risk mitigation measures:

- ✓ Conduct an inclusive and transparent community consultations as per the SEP procedures
- ✓ Establish a framework that provides opportunities for full participation at each stage of project activity preparation and implementation
- ✓ Establish a framework to provide affected vulnerable and disadvantaged communities with all relevant information about the project (including an assessment of potential adverse effects of the project on the affected vulnerable and disadvantaged) in a culturally appropriate manner at each stage of project implementation.
- ✓ Ensure such groups are well represented in committees, associations, consultations either through individuals or representative associations in all project activities

- ✓ Ensure non-discrimination policy, laws and guidelines are properly observed and principles are adhered
- ✓ Ensure beneficially selection and targeting criteria are inclusive enough and considerate of all disadvantaged and vulnerable groups
- ✓ Identify locally prominent cultural/leaders influence on decisions regarding the inclusion or exclusion of such groups and provide necessary trainings to unlock cultural barriers
- ✓ Promote fair treatment, non-discrimination, and equal opportunity in development activities
- ✓ Provide equal opportunity and strictly observe non-discrimination of vulnerable groups from any benefits
- ✓ Incorporate affirmative actions for vulnerable group in employment opportunity;
- ✓ Provide training and capacitate vulnerable groups to enable them develop livelihood strategies (organizing in small and medium enterprises)
- ✓ Due attention should be observed on the protection of vulnerable groups during implementation
- ✓ There should be sufficient representation of the disadvantaged and vulnerable groups in the Kebele GRC
- ✓ Women should be fairly represented in the GRC
- ✓ There should be clear communication structure, means on grievance complaints filing process for women and other vulnerable groups
- ✓ Make all services accessible to vulnerable groups (fair distribution of benefits to beneficiaries)

4.2 Planning and Design Considerations for Avoidance of Environmental and Social Risks and Impacts

Some of the potential environmental and social risks and impacts anticipated from the sub-project activities of the LLRP II project can be effectively avoided or minimized at the early stages of planning and design by considering changing or rerouting of implementation sites, improvising design structures, using technology inputs, maintaining quality and standards of design materials, adhering to regulatory requirements, and preparing risk/impact management plans and emergency plans. These measures are described in the Table below.

Table 6. E&S risk and impacts mitigation measures at the planning and design phase of the project

Potential environmental and social risks	*Avoidance/minimization measures at planning and design stages*
Disturbance to natural habitats, natural vegetation, biodiversity hotspot, cultural heritage sites, protected areas, religious sites, sacred sites, cemeteries, critical wetlands, sanctuaries, national parks, **(PEI, small- and micro dams, access roads, Veterinary clinics/laboratories, Flood control structures, cold-chain and feed store, Livestock market facility)**	✓ Avoid the risk using the exclusion criteria in this ESMF during sub-project activity and site identification and propose alternative routes/sites ✓ Avoid selecting construction sites in and around nature reserves or species conservation areas during planning ✓ Conduct reconnaissance survey of potential sites through a participatory process for all PEIs in component 1 ✓ Select qualified design consultants through a transparent and standard procurement procedures of GoE and WB ✓ Adjust sub-project activity designs to avoid/minimize the risks ✓ For unavoidable impacts, ensure activity –specific ESIA and ESMPs are prepared before implementation ✓ Adjust design to avoid removal of natural vegetation
Displacement and loss of livelihoods or access to resources	✓ Exclude and propose alternatives

	✓ Adjust the design to minimize damage to livelihoods and access restriction ✓ Clearly show the location of subprojects, routs before design and planning commences ✓ Present proof of acquired land legality and voluntary donation ✓ Ensure sub-project activities do not cause physical damage property
Soil salinization from irrigation water use	✓ Comply with appropriate design standards and criteria for irrigation water management ✓ Select appropriate water efficient technology during design and planning (e.g., drip irrigation instead of open furrow and flood irrigation) that reduces excessive water use and evaporation ✓ Prepare soil salinity management plan
Pesticide use and management	✓ Prepare an Integrated Pest Management Plan to minimize the impacts from pesticide use ✓ Procure pesticides only from Certified sources with appropriate approval for use ✓ Prepare the necessary PPE and training manual for the use and management of agrochemical inputs
Access and proximity to Water Bodies (Pollution of surface and ground water sources from potentially toxic substances)	✓ Re-rout and avoid potential contamination to water sources; design treatment of wastewater before discharge as per the EPA specific standards Prepare waste management plan for liquid and solid waste ✓ Prepare a design to contain the release and containment of toxic substances away from water sources
Solid waste, generation and disposal of hazardous, infectious solid/liquid wastes	✓ Prepare waste recycling and reuse plans; ✓ Prepare Safe disposal and management plan, as per recommendations of EPA and Environmental, Health and Safety (EHS) Guidelines of the World Bank
Road accidents or fatalities from increased movement of vehicles	✓ Prepare and apply a traffic management plan detailing traffic control procedure, training materials, sign posts and signals, etc….
Possible failure of small dam structures	✓ Comply with the exclusion criteria during construction site selection ✓ Comply with design standards ✓ Engage experienced and competent professionals for the design ✓ Prepare dam safety measures during design and bid tendering, ✓ Ensure risk analysis are properly conducted, reported and addressed during design, planning ✓ Prepare emergency and preparedness plan for any such eventualities

Uncontrolled fire hazard during invasive alien species management using prescribed fire	✓ Use guidelines prepared for prescribed fire use and management ✓ Provide training on prescribed fire use and importance of fire breaks as control tool ✓ Use PPEs during burning of the invasive species ✓ Create awareness to community members before starting a prescribed fire ✓ Train and prepare sufficient number of people to control the fire ✓ Avoid starting fire on windy days and in high temperature ✓ Avoid starting a fire in unmanageable size of a landscape so that it can't go out of control
Land acquisition	✓ Avoid involuntary land acquisition during sub-project identification ✓ In cases of minor land acquisition, avoid involuntary resettlements, when possible, to do so ✓ Based on the ESIA results, specific resettlement action plan (RAP) should be prepared and implemented in accordance with ESS5, consistent with the RF
Risk of invasive species introduction	✓ Selection of multi-purpose, known species

5. Procedures and Implementation Arrangements

5.1 Environmental and Social Risk Management Procedures

The environmental and social risk management procedures will be implemented through the Project's subproject selection process. In summary, the procedures aim to do the following:

Table 7. Project Cycle and E&S Management Procedures

Project Stage	*E&S Stage*	*E&S Management Procedures*
a. Assessment and Analysis: **Subproject identification**	Screening	✓ During subproject identification, ensure subproject eligibility by referring to the ***Exclusion List in table 8*** below. ✓ For all activities, use the ***Screening Form in Annex 1*** to identify and assess potential environmental and social risks and impacts, and identify the appropriate mitigation measures for the subproject. ✓ Identify the documentation, permits, and clearances required under the FEPA and REPA proclamations (EIA Proclamation No. 299-2002; and Proclamation No. 295/2002)
b. Formulation and Planning: **Planning for subproject activities, including human and budgetary resources and monitoring measures**	Planning	✓ Based on ***Screening Form*** adopt and/or prepare relevant environmental and social procedures and plans. ✓ For activities requiring Environmental and Social Management Plans (ESMPs), A sampling approach such as typology and geographical location, following a risk-based approach will be employed to determine the required number of a representative ESMP preparation of subprojects prior to implementing the project. The ESMP will undergo review process and no objection by the World Bank prior to initiating bidding processes (for subprojects involving bidding processes) and/or launching activities (for sub-project activities not subject to bidding). ✓ Ensure that the contents of the ESMPs are shared with relevant stakeholders (implementing sectors and partners) in an accessible manner and consultations are held with the affected communities in accordance with the SEP. ✓ Complete all documentation, permits, and clearances required under the FEPA/REPA Environmental Regulation. ✓ Train staff responsible for implementation and monitoring of plans (WPUC and E&S focal person). ✓ Incorporate relevant environmental and social procedures and plans into contractor bidding documents; train contractors on relevant procedures and plans. ✓ Provide this ESMF and the LMP to contractors as part of the bidding process for C-ESMP preparation
c. Implementation and Monitoring: **Implementation**	Implementation	✓ Ensure implementation of ESMPs through site visits, regular/monthly by the WPCU reporting from the field, and

support and continuous monitoring for projects		other planned monitoring (quarterly reports and biannual reports). ✓ Track grievances/resolutions/beneficiary feedback. ✓ Continue awareness raising and/or training for E&S focal points, sector staff, contractors, communities.
d. Review and Evaluation: **Qualitative, quantitative, and/or participatory data collection on a sample basis**	Operation/ Completion	✓ Assess whether plans have been effectively implemented. ✓ Confirm identification of corrective actions have been done in case of any non-compliances with ESF requirements. ✓ Ensure that physical sites are properly restored, stabilized and impacts are mitigated ✓ Ensure E&S measures are taken in accordance with legal agreements and WB E&S standards

a. ***Subproject Assessment and Analysis – E&S Screening***

As a first step, all proposed activities should be screened to ensure that they are within the boundaries of the Project's eligible activities, and they are not considered as activities listed on the E&S Exclusion List in the table below. Activities falling in any of the categories in the exclusion list below should be disregarded from the project.

Table 8. Exclusion List of criteria for sub-project identification and screening

✓ If the activity is located in, and will negatively affect the environmentally sensitive areas such as wetlands, national parks, wildlife reserves, cultural heritage and religious sacred sites, important archeological and cultural sites, habitat that contains threatened species of flora and fauna, ground water recharge areas, and important water sources
✓ If the activity causes displacement of significant number of people, families or communities and their livelihood sources
✓ If the environmental impacts and its mitigation measures are not evidently explained
✓ Any activity that may potentially have residual impact/effect on the environment and if difficult to mitigate
✓ Weapons, including but not limited to mines, guns, ammunition and explosives involved
✓ Support of production of any hazardous good, including alcohol, tobacco, and controlled substances
✓ Any construction in protected areas or priority areas for biodiversity conservation, as defined in national law
✓ Any activity affecting physical cultural heritage such as graves, temples, churches, historical relics, archeological sites, or other cultural structure
✓ Any activity that will cause physical relocation of households or will require the use of eminent domain
✓ Any activity that substantially uses natural resources that diminishes the potential use of the resource for any other purpose in the future
✓ Activities that involve extensive harvest and sale/trade of forest resources (post, timber, bamboo, charcoal, wildlife, etc.) for large-scale commercial purposes
✓ Any activity that may potentially have any residual impact/effect on the environment and if difficult to mitigate
✓ If the activity poses a serious risk of land degradation, air pollution, water pollution, damage to wildlife habitat sacred sites
✓ Any activity of land that has disputed ownership or tenure rights

- ✓ Activities that may cause or lead to forced labour or child abuse, child labour exploitation or human trafficking, or subprojects that employ or engage children, over the minimum age of 15 and under the age of 18, in connection with the project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development
- ✓ Any activity affecting physical cultural heritage such as graves, temples, churches, historical relics, archeological sites, or other cultural structures
- ✓ Activities that involve the use of international waterways
- ✓ Construction of any new dams (large dams and small dams with safety risks according to ESS4 Annex 1 definitions) or rehabilitation of existing dams including structural and/or operational changes; or irrigation or water supply subprojects that will depend on the storage and operation of an existing dam, or a dam under construction for the supply of water
- ✓ Purchase and use of banned/restricted pesticides, insecticides, herbicides, and dangerous chemicals banned under national law and World Health Organization category of 1A and 1B pesticides

As a second step, the MILLs/FPCU will use the ***E&S Screening Form in Annex 1*** to identify and assess relevant environmental and social risks specific to the activities, and identify the appropriate mitigation measures. The *Screening Form* lists the various mitigation measures and plans that may be relevant for the specific activities (such as the Environmental and Social Codes of Practice, the Environmental and Social Management Plan, the Labor Management Procedures, Chance Find Procedures, etc.). The MILLs/FPCU will also identify the documentation, permits, and clearances required under the government's Environmental Regulation.

b. ***Subproject Formulation and Planning – E&S Planning***

Based on the process above and the Screening Form, the MILLs/FPCU will adopt the necessary environmental and social management measures already included in the Annexes of this ESMF (such as the ESMPs, the LMP, etc.) or develop relevant site-specific environmental and social management plans.

If site-specific ESMPs are necessary, the MILLs/FPCU and/or the Contractor will prepare these ESMPs and other applicable documents as needed. The MILLs/FPCU will provide approval and compile ESMPs and other applicable forms. The contents of the ESMPs will be shared with relevant stakeholders (implementing sector partners at Woreda and Region levels) in an accessible manner (in hard copies or soft copies through project websites), and consultations will be held with the affected communities on the environmental and social risks and mitigation measures. If certain subprojects or contracts are being initiated at the same time or within a certain location, an overall ESMP covering multiple subprojects or contracts can be prepared.

The required number of ESIA/ ESMP instruments will be determined with consideration of grouping the subprojects based on subproject number, similarity of topology and geographical location. The prepared ESMP will be submitted to the World Bank for prior review and no objection. After the first 5 ESMP reviews, the World Bank and the MILLs/FPCU will reassess and decide whether prior review is needed for further ESMPs or a certain category of ESMPs, for example, for activities exceeding a certain budget, for certain types of activities. The MILLs/FPCU will also complete the documentation, permits and clearances required under the REPAs/FEPAs Environmental Regulation before any project activities begin.

At this stage, staff who will be working on the various subproject activities should be trained in the environmental and social management plans relevant to the activities they work on. The MILLs/FPCU should provide such training to field staff (E&S specialists at the RCSTs, WPUCs and focal points).

The MILLs/FPCU should also ensure that all selected contractors, subcontractors, and vendors understand and incorporate environmental and social mitigation measures relevant to them as standard operating

procedures for civil works. The MILLs/FPCU should provide training to selected contractors to ensure that they understand and incorporate environmental and social mitigation measures; and plan for cascading training to be delivered by contractors to sub-contractors and vendors. The MILLs/FPCU should further ensure that the entities or communities responsible for ongoing operation and maintenance of the investment have received training on operations stage environmental and social management measures as applicable.

c. ***Implementation and Monitoring – E&S Implementation***

During implementation, the MILLs/FPCU will conduct regular monitoring visits (monthly by WPCU, quarterly by RPCU/FPCU). The monitoring and reporting mechanism will be through exchange of written reports in soft and/or hard copies through the hierarchy. Contractors and sub-contractors implementing subproject activities, will be responsible for implementing the mitigation measures as per ESMPs, under the supervision of the MILLs/FPCU.

The MILLs/FPCU will ensure that monitoring practices include the environmental and social risks identified in the ESMF and will monitor the implementation of E&S risk management mitigation plans (ESMPs) as part of regular project monitoring activities.

At a minimum, the reporting will include (i) the overall implementation of E&S risk management instruments and measures, (ii) any environmental or social issues arising as a result of project activities and how these issues will be remedied or mitigated, including timelines, (iii) Occupational Health and Safety performance (including incidents and accidents), (iv) community health and safety, (v) stakeholder engagement updates, in line with the SEP, (vi) public notification and communications, (vii) progress on the implementation and completion of project works, and (viii) summary of grievances/beneficiary feedback received, actions taken, and complaints closed out, in line with the SEP. Reports from the local levels WPCU/RCST will be submitted to RPCU at the region level and to the MILLs/FPCU at the national level, where they will be aggregated and submitted to the World Bank on a quarterly and annual/biannual basis.

Throughout the Project implementation stage, the MILLs/FPCU will continue to provide training and awareness raising to relevant stakeholders, such as project and sector staff, selected contractors, and communities, to support the implementation of the environmental and social risk management mitigation measures. An initial list of training needs is proposed below, in Section 5.5. The MILLs/FPCU will also track grievances/resolutions/beneficiary feedback (in line with the SEP) during project implementation to use as a monitoring tool for implementation of project activities and environmental and social mitigation measures.

If the MILLs/FPCU becomes aware of a serious incident in connection with the project, which may have significant adverse effects on the environment, the affected communities, the public, or workers, it should notify the World Bank within **48 hours** of becoming aware of such incident. A **fatality** is automatically classified as a serious incident, as are incidents of **forced or child labor**, abuses of community members by project workers (including gender-based violence incidents), violent community protests, or kidnappings.

d. ***Review and Evaluation – E&S Completion***

Upon operation/completion of Project activities, the MILLs/FPCU will review and evaluate progress and completion of project activities and all required environmental and social mitigation measures. Especially for civil works, the FPCU will monitor activities with regard to site restoration and landscaping in the affected areas to ensure that the activities are done to an appropriate and acceptable standard before closing the contracts, in accordance with measures identified in the ESMPs and other plans. The sites must be restored to at least the same condition and standard that existed prior to commencement of works. Any pending issues must be resolved before a subproject is considered fully completed. The FPCU will

prepare the completion report describing the final status of compliance with the E&S risk management measures and submit it to the World Bank.

5.2 Technical Assistance Activities

The MILLs/FPCU will ensure that the consultancies, studies (including feasibility studies of sub-project activities), capacity building support and activities, training, and any other technical assistance activities under the Project are carried out in accordance with a well-designed Terms of Reference acceptable to the World Bank, that are consistent with the relevant ESSs. The draft Terms of References will be shared with the World Bank for review and No Objection approval prior to initiating the bidding process. They will also ensure that the outputs of such activities comply with the agreed Terms of Reference.

5.3 Implementation Arrangements

As described below, the ESMF will be implemented through the project management structure established in the LLRP Phase I implementation. At the Federal level, the MILLs/FPCU will be responsible for the federal level management, the relevant bureau or regional president's office and the RPCU will be responsible for region level management. At the Woreda level, the Woreda Cabinet and the office of Pastoralist or Agricultural Development will be responsible for the management and coordination at the Woreda level. Capacity building trainings, resources distribution and monitoring and reporting flows follow this structure. Contractors to be engaged in for sub-project implementation will be required to comply with E&S risk management plans and procedures, including the ESMP, ESCOPs, LMP, and local legislation. Such provision will be specified in the contractor's agreements. Contractors will be expected to disseminate and create awareness within their workforce of E&S risk management compliance for their effective implementation. The overall project implementation and this ESMF is carried out as follows:

Federal Level Management

- ✓ **At the federal level, the MILLs is the designated implementing agency** that provides policy guidance by overseeing and leading the overall management of the LLRP II through the arrangement of the FSC, FTC and FPCU. The FSC is chaired by the MILLs and composed of MoF, MoA, MoE, MoH, EDRMC, EMI. The FSC is accountable to the council of Ministers/PM. Its main role is to provide policy guidance and strategic oversight, coordinate inter-agency/Ministerial activities, and provide approvals and decision making on the activities of the LLRP II project. It serves as guardian of the rules, sector policies and incorporates robust implementation structure and procedures. The FTC is represented by the implementing partners (engaged through MoU for specific component activities) such as ATI, FEPA, EFD, EDRMC, ECC, EIAR, CGIAR (ICARDA, ILRI, AICCRA, for technical advisory and consulting) and EMI, and reports to the FTC. It's role is providing technical assistance to the FSC by prioritizing activities and projects, establishing technical feasibility and economic viability of project interventions. It oversees the application of technological innovations in the PAP sector. Nonfeasible and projects in conflict with national priorities are not approved.
- ✓ **The FPCU at the MILLs is the national coordination hub** and reports to and serves as the secretariat of the FSC. It is a multi-disciplinary technical expertise comprising of component heads, technical officers, and support staff. Its main role includes, but not limited to, day-to-day management of the project activities and manage technical components of the project at federal level, conduct supervision missions, organize and provision of trainings on safeguards (ESF aspects), and operations. It is responsible for the planning, budgeting, and reporting functions of

the project. The FSC convenes biannually and as *ad hoc*. The FPCU has **social and environmental safeguard specialists** who are responsible for the overall implementation, monitoring and reporting on this **ESMF and all other ESRM instruments**. FEPA will provide support during project appraisal, impact screening and ESIA clearance and approval (for Schedule 1 and trans-regional sub-projects, if any).

Regional Level Management

- ✓ **At the region level, the Regional Steering Committee (RSC) chaired by president of the region** or Bureau/Commission of Pastoral Development, Head of the Bureau of Agriculture or Vice President of the region as relevant, is the highest body to oversee the overall implementation of the LLRP II project in the respective regions. The RSC is composed of heads of all relevant sectors including BOFED and is accountable to the regional president's office. Its roles are regional level policy coordination and strategic supervision, review progress and resolve challenges, consolidate and approve Annual work plan (AWP) and annual financial statements, conforms project activities are in line with national priorities and regional peculiarities. The Regional Technical Working Group (RTWG) provides a technical advisory service and reports to the RSC, facilitates regional collaboration, technical approval, integration, and partnerships among regional sector Bureaus. It is composed of technical experts from sector bureaus, regional president's office, RPCU and other international partners.
- ✓ **The RPCU is a replica of the FPCU, housed in the regional pastoral bureau or equivalent/ Office o**f the President, headed **by a regional coordinator** and have multi-disciplinary team of experts. Administratively, the RPCU reports to the RSC and functionally to the FPCU. The RPCU is responsible for the day-to-day management of the project at regional level, managing technical components of the project at regional level. The E&S safeguard specialists at the RPCU will oversee the implementation, monitoring and reporting on the ESMF, and other ESRM instruments at the region level. REPA supports in project appraisal, impact screening and ESIA clearance and approval for schedule 2 and 3, and regional level sub-projects.
- ✓ **The Rangeland Cluster Support Team (RCST**) is a mobile multi-disciplinary technical support team, led by an M&E/Planning Specialist, with a five member technical team composed of a civil engineer, livelihood specialist, social mobilization specialist and finance officer, provides technical support to project implementation at rangeland/ Woredas. The RCST reports to the RPCU and it is accountable for all project activities and investments, ensures conformity to the needs and requirements of the rangelands.

Woreda Level Management

- ✓ **At the Woreda level, the Woreda Cabnet** is the main implementing entity at the Woreda level and it is composed of sector offices, Woreda Finance office and Woreda procurement office, and reports to the RSC. Its main role is approving Woreda level plans, integrating project plans with sector plans, approving annual work plans, ensuring community participation and allocation of budgets. It reviews progress on a quarterly basis. It is accountable to institutionalize the project approaches into the government system. The Woreda technical committee is composed of experts from the sector offices, the WoFED and reports to the Woreda cabinet. Its main role is providing technical support to the Woreda cabinet. It is accountable in ensuring the CDPs are in accordance with development policies and priorities of the Government.
- ✓ **The Woreda Pastoral/ Agriculture/Livestock Development** office functions as the **project coordination** unit at Woreda level and reports to the Woreda cabinet and RPCU. It leads project implementation at Woreda level. It is accountable for the achievement of targets as per the agreed annual work plan. The WoRED, supported by Project Accountant and Project Procurement Officers, are responsible for project budgeting and project procurement. It is accountable for

prudence and transparency in all fiduciary matters. The E&S safeguard focal person at the WoEP will oversee the implementation, monitoring and reporting on the ESMF, and other ESRM instruments at the Woreda level. The WoEP supports in project appraises, screening, ESIA review, clearance and approval for schedule 2 &3 sub-project activities.

Kebele Level Management

- ✓ **The Kebele Development Committee (KDC)** oversees the community mobilization and formation, strengthening and functioning of all community level institutions, establishes all kebele level committees, facilitates participatory planning with communities, prepares community development plans, community action plans and community livelihood plans including CIF sub projects. It is accountable for inclusive program planning representing vulnerable, under served and women. The Kebele level Technical Staff, composed of Agriculture DA, Animal Health Technician, Teachers and Health Extension Workers. Its role is technical facilitation of all the sectoral activities relating to PAP. The project will mobilize and build capacity of committees of communities from among the households with directly benefitting from an activity. The community arm of the Kebele development committee will be a community facilitation team comprising of community members who are experienced in the development of activities in the Kebele and are knowledgeable about the natural resources and acceptable by the community members. In addition to participating in the planning, design and implementation of specific activities, Oversight Committees, Procurement committees will be mobilized and established. For the continued maintenance and management of facilities or services like schools or irrigation schemes, Parent Teacher Associations, Water User Associations etc. will also be set up from among the beneficiaries.

The table below summarizes the roles and responsibilities regarding the implementation arrangements for environmental and social management in the LLRP II project.

Table 9. ESMF Implementation Arrangements

Level/ Responsible Party	Roles and Responsibilities
Federal Level MILLs/FPCU	✓ Provide support, oversight, and quality control to the RPCU, RCST and WPCU staff working on environmental and social risk management. ✓ Collect, review, and provide quality assurance and approval to Screening Forms and ESMPs as relevant. Keep documentation of all progress. ✓ Oversee overall implementation of all ESRM instruments and monitoring of environmental and social mitigation measures and management activities, compile progress reports from Woreda and region levels PCUs/subprojects, and report to the World Bank on a quarterly basis. ✓ Train regional, Woreda level staff and contractors who will be responsible for implementing the ESMF and other instruments. ✓ If contracting is managed at federal level, ensure that all bidding and contract documents include all relevant E&S management provisions per screening forms, ESMPs. ✓ Support the regional and Woreda level experts in organizing capacity building programs and in the preparation of ESMP for sub-projects with environmental and social concerns; ✓ As required, update this ESMF and other instruments ✓ Disclose this ESMF, and other instruments to the public/stakeholders;
FEPA	✓ Review and provide approval on Screening and ESIA reports for Schedule 1and trans-regional sub-project activities

	✓ Facilitate and provide training for sector office experts and E&S experts at regional and Woreda levels
Regional Level RPCU	✓ Oversee day-to-day implementation and monitoring of environmental and social risk and impact mitigation measures, and report progress and performance to the FPCU on a monthly basis ✓ Ensure project activities do not fall under the exclusion list. Fill out Screening Forms for relevant subproject activities and submit to the FPCU. ✓ If contracting is managed regionally, ensure that all bidding and contract documents include all relevant E&S risk management provisions per screening forms, ESMPs, and ESCOPs. ✓ If relevant, complete site-specific ESMPs for subproject activities and submit the same to the FPCU. ✓ Provide training to contractors and Woreda level E&S safeguard experts on relevant environmental and social risk mitigation measures.
REPA	✓ Review and clear screening reports submitted by implementing sectors; ✓ Oversee the preparation of ESIA/ESMPs by consultants where required, review and clear Terms of Reference, review and clear draft ESIA/ESMPs and participate on public consultation activities; ✓ Review designs to ensure ESIA is fed into the design; ✓ Supervise implementation of the environmental and social risk mitigation measures by the regional and Woreda level sector offices and local contractors ✓ Provide capacity building training and other technical support, as necessary, for the regional and Woreda level experts, E&S safeguard focal persons;
Woreda Pastoral/ Agriculture/Livestock Development **(WoPALD)**	✓ Oversee day-to-day implementation and monitoring of environmental and social risk and impact mitigation measures, and reports progress and performance to the RPCU on a monthly basis ✓ Complete site-specific ESMPs for subproject activities and submit the same to the RPCU. ✓ Ensure project activities do not fall under the exclusion list. Fill out Screening Forms for relevant subproject activities and submit to the RPCU. ✓ Oversee implementation of this ESMF and other project specific environmental and social instruments at Woreda level; ✓ Establish Kebele GRCs, monitor cases and resolutions, report same to RPCU
Woreda Environment Protection Office (WoEP)	✓ Review screening reports of sub-project activities by sector offices ✓ Review and clear ESIA reports for schedule 2 and 3 sub-project activities ✓ Provide training to DAs and extension workers, technicians, local contractors and Woreda level E&S safeguard focal persons on relevant environmental and social risk and impact mitigation measures.
Local contractors	✓ Comply with the Project's environmental and social mitigation and management measures as specified in the ESMPs, ESCOPs, and contract documents, as well as national and local legislation. ✓ Take all necessary measures to protect the health and safety of workers and community members, and avoid, minimize, or mitigate any environmental harm resulting from project activities ✓ Fully comply with Word Bank EHSGs

5.5 Proposed Training and Capacity Building

This ESMF builds on the existing capacity at all levels from LLRP I and perhaps requires capacity enhancing, tailor-made and need-based trainings on themes/topics that are deemed very necessary by the implementing sectors, management bodies, technical teams and experts. Innovative activities, new components, additional new region and Woredas are included in the LLRP II project. Hence, cascaded training is necessary to capacitate partners and E&S specialists on the overall risks and impacts of sub-project activities, and create understanding as well as build knowledge and skills needed in managing E&S risks and impacts as a result of sub-project activity implementation.

Capacity building is an integral part of the LLRP II design under component 4 of the project and the sub-components are targeted to finance capacity building trainings, studies and technical assistance and provide necessary implementation support activities to ensure that the implementing institutions have adequate technical, planning, and operational capacity to implement the proposed project activities, establish knowledge management systems and contribute to national policy review, establish national think tank body and PACKS to provide PAP development policy guidance at national level. Hence, the main goal of the training and capacity building is to mainstream environmental and social consideration into the processes of sub-project identification, planning, implementation, mitigation and monitoring. The training will enable staff of the implementing institutions to have the skills and knowledge in screening, monitoring, inspecting, identification and analysis of environmental and social risks and impacts, and implementation of mitigation measures proposed in this ESMF.

The proposed trainings to support the implementation of this ESMF include awareness creation and overall understanding of the E&S process for the federal, regional and Woreda level steering and technical committees, Kebele Development/management and KDC members; application of ESRM tools (ESMF, ESIA, ESMP, PMP, RAP,SA and SRAMP) and E&S implementation, monitoring and reporting for federal and regional E&S safeguard specialists, Woreda E&S safeguard focal persons, DAs, and sector specialists at different level of implementation.

Table 10. Proposed Training and Capacity Building for the implementation of the ESMF

Level	*Responsible body*	*Target groups*	*Topics/Themes to Be Covered*
Federal level	World Bank/ Consultants/ FEPA	MILLs/FPCU engineers, sector specialists, E&S safeguard specialists who are responsible for overall implementation of this ESMF and other ESRM instruments	**E&S management** ✓ Understanding the E&S risks, impacts and management instruments ✓ application of ESRM tools (ESMF, ESIA, ESMP, PMP, RAP,SA and SRAMP) ✓ Identification and assessment of E&S risks ✓ Selection and application of relevant E&S risk and impact management measures/ instruments ✓ E&S monitoring and reporting ✓ Incident and accident reporting ✓ Application of SEP and LMP, including Code of Conduct, incident reporting, GBV,SEA/SH, COVID-19 prevention ✓ GRM and E&S audit **Relevant policies and Laws**

			✓ National policies and legislations ✓ World Bank ESS standards, EHSGs
		FSC, FTC, Coordinators, higher level management members,	✓ Awareness creation on E&S risks management mechanisms ✓ Understanding on the E&S risks and impacts of the LLRP II project
Regional level	FPCU E&S safeguard specialists	RPCU engineers, sector specialists, E&S safeguard specialists, experts from implementing partners, and RCST members	✓ Understanding the E&S risks, impacts and management instruments of the project ✓ Application of ESRM tools (ESMF, ESIA, ESMP, PMP, RAP,SA and SRAMP) ✓ Identification and assessment of E&S risks ✓ Selection and application of relevant E&S risk management measures ✓ E&S monitoring and reporting ✓ Incident and accident reporting ✓ Application of SEP and LMP, including Code of Conduct, incident reporting, GBV, SEA/SH, COVID-19 prevention ✓ GRM and E&S audit **Relevant policies and Laws** ✓ Regional policies and legislations ✓ World Bank ESS standards, EHSGs
		RSC, RTWG, Bureau heads	✓ Awareness creation on E&S risks management mechanisms ✓ Understanding on the E&S risks and impacts of the LLRP II project
Woreda level	RPCU E&S safeguard specialists	Woreda Coordination office staff, E&S focal persons, experts from sector offices Local contractors	✓ Sub-project identification, screening and reporting ✓ Understating of the ESRM tools, ESIA and ESMP preparation ✓ Application of SEP, GBV/SEA/SH and its response mechanism, the GRM and beneficiary feedback mechanism ✓ Application of LMP, including Code of Conduct, incident reporting, GBV, SEA/SH, COVID-19 prevention measures ✓ Application of ESCOPs or ESMPs, as relevant ✓ E&S implementation, monitoring and reporting ✓ E&S audit
		Cabinet members, Heads of sectors,	✓ Awareness creation on E&S risks management mechanisms ✓ Understanding on the E&S risks and impacts of the LLRP II project

Kebele/Community level	Local staff	KDC members, DAs Different Community members including GRCs, clan leaders, religious leaders, youth, women Local contractors, contract workers, Community Workers	✓ CDD Sub-project identification and application of the exclusion criteria ✓ Basic OHS measures and Personal Protective Equipment ✓ Community health and safety issues ✓ Worker Code of Conduct ✓ GBV,SEA/SH issues, prevention, response measures ✓ IPM and fertilizer management ✓ COVID-19 prevention measures ✓ Grievance redress ✓ Workers' grievance redress

5.6 Estimated Budget for the Implementation of the ESMF

The E&S safeguard implementation is an integral part of the sub-project activities in all the components of the project. E&S management mechanism is crucial to prevent adverse impacts and potential risks to society and the environment that emanate from the implementation of sub-project activities. Besides, the E&S management instruments serve to ensure sustainability of project interventions. The costs for the implementation of this ESMF can be sourced from the Capacity building and technical support part of Component 4 of the project. This indicative budget includes cost for the following activities of the ESMF implementation.

- ✓ Management, implementation, monitoring (staffing and operation)
- ✓ Training and capacity building
- ✓ E&S auditing

The salaries of E&S safeguard specialists at the FPCU, RPCU and E&S focal persons at Woreda levels and operational costs are covered under this budget. Periodic (quarterly and monthly by Woreda experts) monitoring on the progress of E&S implementation and effectiveness of the mitigation measures will be carried out periodically, and the cost of monitoring covered under this budget. Whereas the actual cost of the mitigation measures are not included in the ESMF implementation budget, since such costs are covered directly or indirectly by contractors as part of the cost for construction under each component.

The following table lists estimated cost items for the implementation for the ESMF, which can be drawn from the component 4.

Table 11. Estimated Budget for ESMF Implementation

Activity/Cost Item	Potential Cost (USD)	
Management, implementation and monitoring	**Sub-total**	**5,390,000**
✓ Environmental and social staff (FPCU, RPCU,RCST,WPCU, Kebele)		4,800,000
✓ Equipment, gadgets and materials, software for data collection / supervision / monitoring / grievance redress		45,000
✓ Preparation of site-specific ESMPs and other site-specific plans		240,000
✓ Supervision and monitoring of the implementation of site-specific ESMPs and other site-specific plans		250,000
✓ Cost of obtaining clearances or permits		55,000
Training and Capacity Building	**Sub-total**	**470,000**

✓ Training of Federal level experts (2 per year for four years)		120,000
✓ Trainings for Regional staff (2 per year for four years)		120,000
✓ Trainings for Woreda and KDC, DA (3 per year for four years)		120,000
✓ Trainings for contractors (after engagement, all contractors)		65,000
✓ Training materials preparation		45,000
E&S Audit	**Sub-Total**	**151,000**
✓ Environmental and Social Audit (E&S safeguard staff)		55,000
✓ E&S audit by external consultants		96,000
Grand TOTAL		**6,011,000**

6. Stakeholder Engagement, Disclosure, and Consultations

A separate Stakeholder Engagement Plan (SEP) has been prepared for the Project, based on the World Bank's Environmental and Social Standard 10 on Stakeholder Engagement. The stakeholder consultation is to provide a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the project will be carried out effectively within project period to the satisfaction of all concerned parties. Consultations and information dissemination of the LLRP II project are made with the intention of serving the following four major purposes: (i) to understands the interests, views and needs of stakeholders and PAP communities; (ii) to ensure there is sufficient coordination between the implementing partners, government body and community structures; (iii) to receive the concerns, feedbacks and comments as well as grievances from stakeholders and communities on the design and implementation of the project; and (iv) to transparently share accountability mechanisms on all aspects of the project. All feedbacks and concerns collected from the stakeholders and communities will be addressed by the FPCU and RPCU. Further feedbacks that have concern and grievances will be addressed through the GRM of the project.

Although they are not mentioned explicitly in the SEP of the LLRP II Project, stakeholder consultations serve the following purposes and address the issues:

- ✓ Develop and maintain avenues of communication between the project and stakeholders to ensure that their views and concerns are incorporated into sub-project design, implementation, and monitoring with the objectives of reducing negative impacts to enhance benefits;
- ✓ Inform and discuss about the nature and scale of adverse impacts and to identify priorities of remedial measures for the impacts in a more transparent and participatory manner;
- ✓ Include the attitudes of the community and officials who will be affected by the project so that their views and proposals are mainstreamed to formulate mitigation and benefit enhancement measures;
- ✓ Understand the priorities and aspirations of stakeholders when implementing the proposed mitigation measures;
- ✓ Increase public awareness and understanding of LLRP II to ensure its acceptance; and
- ✓ Inform to the concerned authorities about the impacts of the project, solicit their views, and discuss their share of responsibility for a smooth functioning of the overall projects activities.

The consultation process adopts a participatory approach throughout the entire planning and implementation of sub-projects. Public participation and consultations will take place through community meetings and all aspects of the subproject including the anticipated environmental and social risks and mitigations will be presented publicly. The proposal of subprojects and the community consultation will be held in accordance with the procedures in the SEP and this ESMF.

Disclosure or the provision of access to relevant information for communities and other stakeholders helps them to understand risks, impacts and opportunities of the LLRP II sub-projects. The potential social and environmental adverse effects of the project should be disclosed in the LLRP II website using the major local languages such as, Amharic, Afan Oromo, Afar and Somali. The disclosure in World Bank website will be made in English language. Besides, public disclosure will be made through billboard, banners, flyers, magazines, local FM radios, regional television channels etc. In compliance with the World Bank's Public Consultation and Disclosure Policy, the LLRP II (FPCU) will make available copies of the ESMF at accessible places to the public to allow the public and other stakeholders to express their views and comment on the possible environmental and social impacts of the projects and the respective safeguards management to minimize or avoid the anticipated impacts. In this ESMF document, stakeholder concerns, community views and suggestions are documented and summarized below.

Annexes

Annex 1. Screening Form

The E&S Screening procedure comprises of two stages-process: (1) Initial screening by using the **Exclusion List** in Table 5 of the ESMF; and (2) Screening the proposed activities to identify the approach for E&S risk management. This Screening Form is the second stage of screening process and is to be used for all subproject activities. The completed forms will be signed and kept in the Project ESF file. The World Bank may review a sample of the forms during implementation support visits.

1. Subproject Information:

Subproject Title	
Subproject Location	
Regional Unit in Charge	
Estimated Cost	
Start/Completion Date	
Brief Description of Subproject	

2. Environmental and Social Screening Questionnaires

Questions	Answer		Next Steps
	Yes	No	
ESS1			
1. Is the subproject likely to have significant adverse environmental impacts that are sensitive and unprecedented that trigger the 'Ineligible Activities' or other exclusion criteria?			If "Yes": Exclude from project.
2. Does the subproject involve new construction or significant expansion of ponds, small and micro dams, solid waste management systems, shelters, roads (including access roads), community centers, cold stores, veterinary centers, laboratories, livestock marketing facility, schools, bridges and jetties?			If "Yes": 1. Prepare a site-specific E&S Assessment and/or ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents.
3. Does the subproject involve renovation or rehabilitation of any small-scale infrastructure, such as groundwater wells, latrines, showers/washing facilities, or shelters?			If "Yes": 1. Apply relevant measures based on the ESCOPs in Annex 2 (unless one of the questions below raises specific environmental risks and requires a site-specific ESMP). 2. Include E&S risk management measures in bidding documents.
4. Will construction or renovation works require new borrow pits or quarries to be opened?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents.
5. Does the project lead to any risks and impacts on, individuals or groups who, because of their particular circumstances, may be disadvantaged or vulnerable.[1]			If "Yes": Apply relevant measures described in the ESMF and SEP.

[1] "Disadvantaged or vulnerable" refers to those individuals or groups who, by virtue of, for example, their age, gender, ethnicity, religion, physical, mental or other disability, social, civic or health status, sexual orientation, gender identity, economic disadvantages or ethnic peoples status,

6. Are there any associated facilities needed for the subproject (such as access roads or electricity transmission lines) that will require the involuntary acquisition of new land?			If "Yes": Refer to and apply the project RF
ESS2			
7. Does the subproject involve uses of goods and equipment involving forced labor, child labor, or other harmful or exploitative forms of labor?			If "Yes": Exclude from project.
8. Does the subproject involve recruitment of workforce including direct, contracted, primary supply, and/or community workers?			If "Yes": Apply LMP in Annex 4.
9. Will the workers be exposed to workplace hazards that needs to be managed in accordance with local regulations and EHSGs? Do workers need PPE relative to the potential risks and hazards associated with their work?			If "Yes": Apply LMP in Annex 4.
10. Is there a risk that women may be underpaid when compared to men when working on the project construction?			If "Yes": Apply LMP in Annex 4.
ESS3			
11. Is the project likely to generate solid or liquid waste that could adversely impact soils, vegetation, rivers, streams or groundwater, or nearby communities?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents.
12. Do any of the construction works involve the removal of asbestos or other hazardous materials?			If "Yes": Apply asbestos guidance provide in the ESCOP
13. Are works likely to cause significant negative impacts to air and / or water quality?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents.
14. Does the activity rely on existing infrastructure (such as discharge points) that is inadequate to prevent environmental impacts?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents.
15. Is there any potential to have impact on soil or water bodies due to agro-chemicals (e.g., pesticides) used in farmlands due to the consequences of the subproject activities (e.g., development of irrigation system, agriculture related activities, seed and fertilizer assistance, procurement of pesticides)?			If "Yes": Apply Fertilizer and Pest Management Plan in Annex 7.
ESS4			
16. Is there a risk of increased community exposure to communicable disease (such as COVID-19, HIV/AIDS, Malaria), or increase in the risk of traffic related accidents?			If "Yes": Apply LMP in Annex 4 and relevant measures in SEP.
17. Is an influx of workers, from outside the community, expected? Would workers be expected to use health services of the community? Would they create pressures on existing			If "Yes": Apply LMP in Annex 4.

and/or dependence on unique natural resources, may be more likely to be adversely affected by the project impacts and/or more limited than others in their ability to take advantage of a project's benefits.

community services (water, electricity, health, recreation, others?)			
18. Is there a risk that SEA/SH may increase as a result of project works?			If "Yes": Apply LMP in Annex 4.
19. Would any public facilities, such as schools, health clinic, church be negatively affected by construction?			If "Yes": Apply relevant measures based on the ESCOPs in Annex 2 (unless one of the other questions in the screening form raises specific environmental and social risks and requires a site-specific ESMP).
20. Will the subproject require the government to retain workers to provide security to safeguard the subproject?			If "Yes": Prepare a site-specific ESMP for the proposed subproject, including an assessment of potential risks and mitigation measures of using security personnel.
21 Will the dam sub-project causes an unusually large flood-handling requirement?			If "Yes" avoid dam construction, conduct detail feasibility study and design change prior to project implementation.
22. Will the dam sub-project be located in a zone of high seismicity?			If "Yes" avoid dam construction and consider feasibility study and consider design change.
23. Will dam foundations that are complex and difficult to prepare?			If "Yes" avoid dam construction and consider feasibility study and design change.
24. Will dam construction cause flooding and impact on the downstream area?			If "Yes" Conduct detailed feasibility study for dam construction and prepare a site-specific ESIA/ESMP for the proposed subproject, including an assessment of potential risks and mitigation measures of flooding.
25. Will dam construction plan be constructed in the water scarcity areas?			If "Yes" Conduct detailed feasibility study for dam construction and consider dam construction site location change. Besides, prepare a site-specific ESIA/ESMP for the proposed subproject, including an assessment of potential risks and mitigation measures to avoid community water scarcity problem.
ESS5			
21. Will the subproject require the involuntary acquisition of new land (will the government use eminent domain powers to acquire the land)?[2]			If "Yes": Refer to and apply the project Resettlement Framework (RF).
22. Will the subproject lead to temporary or permanent physical displacement (including people without legal claims to land)?			If "Yes": Refer to and apply the project RF.
23. Will the subproject lead to economic displacement (such as loss of assets or livelihoods, or access to resources due to land acquisition or access restrictions)?			If "Yes": Refer to and apply the project RF.

[2] Environmental and Social Standard 5, Footnote 10: "In some circumstances, it may be proposed that part or all of the land to be used by the project is donated on a voluntary basis without payment of full compensation. Subject to prior Bank approval, this may be acceptable providing the Borrower demonstrates that: (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor's remaining land area below that required to maintain the donor's livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. The Borrower will maintain a transparent record of all consultations and agreements reached."

24. Has the site of the subproject been acquired through eminent domain in the past 5 years, in anticipation of the subproject?			If "Yes": Refer to and apply the project RF.
25. Are there any associated facilities needed for the subproject (such as access roads or electricity transmission lines) that will require the involuntary acquisition of new land?			If "Yes": Refer to and apply the project RF.
26. Is private land required for the subproject activity being voluntarily donated to the project?[3]			If "Yes": Refer to and apply the project RF.
ESS6			
27. Does the subproject involve activities that have potential to cause any significant loss or degradation of critical habitats[4] whether directly or indirectly, or which would lead to adverse impacts on natural habitats[5]?			If "Yes": Exclude from project.
28. Will the project involve the conversion or degradation of non-critical natural habitats?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Include E&S risk management measures in bidding documents. 3. Consider BMPs preparation if significant impacts are expected.
29. Will this activity require clearance of mangroves (riverine vegetation)?			If "Yes": Exclude from project.
30. Will this activity require clearance of trees, including inland natural vegetation?			If "Yes": 1. Prepare a site-specific ESMP for the proposed subproject, based on the template in Annex 3. 2. Exclude from project if more that 0.5 hectares of tree and vegetation cutting is expected. 2. Include E&S risk management measures in bidding documents.
31. Will there be any significant impact on any ecosystems of importance (especially those supporting rare, threatened or endangered species of flora and fauna)?			If "Yes": Exclude from project.
ESS7			
32. Are there any Indigenous Peoples or Sub-Saharan African Historically Underserved Traditional Local Communities present in the subproject area and are likely to be affected by the proposed subproject negatively?			If "Yes": Prepare an Indigenous Peoples Plan OR Include the requirements of an Indigenous Peoples Plan in the SEP.
ESS8			

[3] Environmental and Social Standard 5, Footnote 10: "In some circumstances, it may be proposed that part or all of the land to be used by the project is donated on a voluntary basis without payment of full compensation. Subject to prior Bank approval, this may be acceptable providing the Borrower demonstrates that: (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor's remaining land area below that required to maintain the donor's livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. The Borrower will maintain a transparent record of all consultations and agreements reached."

[4] Environmental and Social Standard 6, paragraph 23: "Critical habitat is defined as areas with high biodiversity importance or value, including (a) Habitat of significant importance to Critically Endangered or Endangered species, as listed in the IUCN Red List of threatened species or equivalent national approaches; (b) Habitat of significant importance to endemic or restricted-range species; (c) Habitat supporting globally or nationally significant concentrations of migratory or congregatory species; (d) Highly threatened or unique ecosystems; and (e) Ecological functions or characteristics that are needed to maintain the viability of the biodiversity values described above in (a) to (d)."

[5] Environmental and Social Standard 6, paragraph 21: "Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition."

33. Is the subproject to be located adjacent to a sensitive site (historical or archaeological or culturally significant site) or facility?			If "Yes": Apply Chance Find Procedures in Annex 5.
34. is sub-project located near buildings, sacred trees or objects having spiritual values to local communities (e.g. memorials, graves or stones) or require excavation near there?			If "Yes": Apply Chance Find Procedures in Annex 5.

3. Conclusion

Based on the result from the screening above, please list the E&S risk management instruments to be prepared / adopt and implemented:

a)
b)

Name and title of person who conducted screening:

Date of screening:

Annex 2: Terms of Reference (Tor) for Preparation of an Environmental and Social Impact Assessment (ESIA)

TABLE OF CONTENTS

1. BACKGROUND....1
1.1. CONTEXT....1
1.2. PROJECT COMPONENTS....2
1.3. ENVIRONMENTAL AND SOCIAL RISK RATINGS OF THE PROJECT....3
2. OBJECTIVES OF THE CONSULTANCY SERVICE....5
3. SCOPE OF WORK AND EXPECTED OUTPUT....6
3.1. GENERAL....6
3.2. INTRODUCTION....6
3.3. LEGAL AND INSTITUTIONAL FRAMEWORKS....7
3.4. PROJECT DESCRIPTION....8
3.5. ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS....9
3.6. ENVIRONMENTAL AND SOCIAL RISKS & IMPACTS....9
3.7. ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES....11
3.8. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLANS....11
3.9. CAPACITY DEVELOPMENT AND TRAINING....12
3.10. IDENTIFYING AND ANALYSIS OF ALTERNATIVES....12
3.11. STAKEHOLDER IDENTIFICATION, CONSULTATIONS, AND GRIEVANCE REDRESS MECHANISM....13
3.12. CONCLUSIONS AND RECOMMENDATIONS....13
3.13 DELIVERABLES....13
4.1.1. Inception Report....14
4.1.2. Environmental and Social Impact Assessment (ESIA) Report....14
5. TIMELINE OF THE CONSULTANCY SERVICE....14
6. CONSULTANT'S TEAM AND QUALIFICATIONS....15
7. CONSULTANT'S PROPOSAL....16
8. CLIENT'S SUPPORT....16
1. ANNEX A : INDICATIVE OUTLINE FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

2. REPORT……..18

1. BACKGROUND

1.1. CONTEXT

The proposed Lowlands Livelihood Resilience Project, Phase Two (LLRP II) is a follow-on operation to the ongoing Lowlands Livelihood Resilience Project (LLRP, P164336). LLRP is a six-year (2019-2025) IPF operation with an original allocation of US$451 million, (US$350m IDA, US$90m IFAD co-financing and US$11m cash and in-kind community contributions). The PDO of LLRP is to "improve the livelihood resilience of pastoral and agropastoral communities in Ethiopia". Four years since its effectiveness (November 21,2029), the project has been going well and to date the disbursement stands at 79 percent. Addressing vulnerability and enhancing resilience of PAPs to impacts climate change induced disasters and other challenges has become a high priority for the GoE. Given the multiple challenges encountered the PAPs in the lowlands of the country, significant development resources continued to be diverted to emergency disaster management. To address the critical challenges of the PAPs in a more integrated and systematic way, the GoE has requested more technical and financial support for the lowlands and the PAP communities. Therefore, the Lowlands Livelihood Resilience Project, Phase Two (LLRP II) is proposed to support the GoE's initiatives in building pastoral and agro-pastoralists livelihood resilience to the impacts of climate change and other disasters. Therefore, building on the achievements and experiences of LLRP, the proposed project (LLRP II) will continue serve 3 million PAPs in the 100 woredas of the Seven LLRP supported regions (Afar, Benshangul-Gumuz, Gambella, Oromiya, Somali, South Ethiopia and Southwestern Ethiopia). The government is also planning to include Diredawa administration to the project. This will help to further capitalize and sustain gains made so far under phase one on resilience building and livelihood improvements, thereby contributing towards the national level food security and resilience building strategic efforts. The project will address the critical challenges facing the PAP communities towards enhancing their resilience to climate change with an integrated approach, including rangelands as an entry point for investments. The project design is well informed by lessons from LLRP, and other similar projects supported by Bank and other development partners.

Compared to LLRP, LLRP II incorporates several new features to enhance its effectiveness: a) Emphasizes disaster risk management for system resilience, through introducing one new component on Pastoral Risk Management for Resilience; b) Places greater focus on climate change mitigation and adaptation and aligns with the new corporate requirement on Paris Alignment; c) Expands geographical coverage to include one region (Diredawa); d) Shifts towards strategic investments for disaster preparedness and resilience building, prioritizing them over social service subprojects. e) Adopts a One Health approach; f) Integrates innovative grants and improved technologies through Smart Pack approach for climate smart and resilient livelihoods g) Addresses causes of conflict and fragility through risk management and natural resource management, with focus on nature based solutions such as natural rangelands and pasture management; h) Promotes integrated water resources management, considering human and livestock needs alongside natural resources management; and i) Enhances institutional coordination and partnership between sector ministries and international organizations.

1.2. PROJECT COMPONENTS

The proposed project will have four components; (i) Pastoral Risk Management for Resilience (PRMR); (ii) Integrated Rangeland Management (IRM); (iii) Climate Smart and Resilient Livelihoods (CSRL), and (iv) Project Management M&E and Policy Engagement.

Component 1: Pastoral Risk Management for Resilience (PRMR): (Initial allocation of US$214M) aims to enhance disaster risk management and climate change mitigation and adaptation capacities at all levels through two interrelated sub-components. The first sub-component focuses on strengthening integrated early warning and response systems, which addresses climate related hazards and involve multiple agencies. The second sub-component supports the planning and implementation of climate-smart disaster preparedness and strategic investments to build resilience among the PAP households and communities.

Component 2: Integrated Rangeland Management (IRM) (Initial estimate US$63M): building on the experiences of LLRP I, will use natural rangelands as an entry point for a participatory, integrated, nature based and climate smart investments to improve the production, productivity, and health of the rangeland resources that will in turn contribute to the improvement of the livestock productivity and the livelihoods of the PAPs and the resilience of the rangeland ecosystem. The component will have three complimentary sub-components that include (1) Participatory Rangeland and Pasture Management (2) Rangeland Health Monitoring and Institutional Capacity Building and 3) Conflict Management, Access to Key Natural Resources and Renewable Energy. Moreover, it will coordinate its activities with component 1 (PRMR) and 3 (CRSL) to inform each other to ensure complementarity. Technical assistance will be sought from EIAR and CGIAR institutes including ILRI, ICARDA etc., for innovative and improved feed technologies and practices for lowlands. The project will make use of research out puts and innovations developed through the Bank and CGIAR cooperation under the Accelerating Innovations by CGIAR on Climate Change Research (AICCRA) project.

Component 3: Climate Smart and Resilient Livelihoods (CSRL) (Initial Allocation US$88M: This component, with a primary focus on Livestock and Crop (Agro-Pastoralism), will introduce and finance climate-smart practices and approaches that will tackle the critical challenge of agricultural (livestock and crop) production and productivity, resilience to climate risks, and mitigation of GHG emissions from livestock and land use change, to enhance sustainable PAP livelihoods. Research proven improved varieties, breeds and technologies bundled into smart packs and fit to dryland areas will be prioritized and promoted. The smart pack will include feed, health, breed, good animal husbandry and marketing strategies. The component will support piloting of digital and private sector led crop and livestock extension approaches. The project will implement these activities with targeted technical supports from CGIAR institutes, including ICARDA, ILRI, CYMMIT, etc.) and UNFAO as deemed necessary. To improve nutrition and dietary diversity in PAP communities, commercialization of honey, fishery, meat & live animals, and poultry value chains will be promoted. This component will also reduce gender-related barriers to participation of women in value-adding livestock initiatives by empowering them through the training programs and engaging them in leadership positions in the groups created by the project. The component will include two complimentary sub-components:(1) Support Climate-smart Livestock and Crop Productivity and Value chains and (2) Livelihoods Diversification and Commercialization.

Component 4: Project Management, Monitoring, Evaluation and Learning (Initial allocation US$35M); This component will facilitate overall institutional coordination and partnerships among sector ministries, non-governmental and international organizations; manage project implementation procedures and processes; monitoring of implementation and outcomes; learning sharing; knowledge management and policy engagement at all levels of project execution. The component includes two subcomponents: (1) Project Management and M&E; and (2) Knowledge Management and Policy Engagement.

1.3. Environmental and Social Risk Ratings of the Project

Environmental Risk Rating - Substantial

As it has been the case for the parent project, LLRP II is expected to have a range of environmental benefits as it will support invasive plant species (Prosopis juliflora) control activities in addition to financing rangeland management, energy-efficient technologies, and soil and water conservation measures. However, there are also potential negative environment, health and safety risks and impacts that could result from the LLRP II activities. The EHS risks and impacts could result from some of the project activities/investments which will be supported under i) Component 1 such as small-scale irrigation, rural access roads, energy-efficient technologies (solar), livestock clinics/laboratories and flood control structures; and ii) Component 2 such as smallholder irrigation and feed/forage production and management. The anticipated risks/impacts are elaborated below: New water supply schemes from groundwater could lead to unmanaged local livestock movements and ecologically destabilizing overgrazing. Development of water resources often involves balancing competing qualitative and quantitative human needs with the rest of the environment. This is a particularly challenging issue in the absence of a clear allocation of water rights which should be resolved with the participation of appropriate parties in advance of project design and implementation. Both surface water and groundwater supplies can become contaminated with potentially toxic substances of natural and anthropogenic origins, including pathogens, toxic metals (e.g., arsenic), anions (e.g., nitrate), and organic compounds. Groundwater could be depleted as a result of water development activities, and pumps could malfunction if excessive amounts of water are discharged. SSI may lead to an increase in water extraction, soil salination, soil nutrient management concerns, water consumption, pesticide management (although the project will not finance any pesticide), crop residue and solid waste management concerns, and potential risks to biodiversity and ecosystem. Other environmental issues and ecological impacts of livestock production include small scale GHG emissions; hazardous material management from animal clinics and labs and solar panels); animal disease outbreaks; threats to biodiversity and the environment from pasture and farmland expansion, or the introduction of new animal breeds, seed, and plant and crop species; and possible failure of small dam structures could cause safety risks. Construction of flood control, feed and food stores could lead to generation of wastes, noise, and consumption resources such as water and other construction raw materials. There are also various occupational health and safety (OHS) issues that may result from the project activities such as physical hazards, biological hazards, and chemical hazards. Component 4 will support Type 2 TAs such as policy engagement on strategic issues for the sector (including policy gap assessments and dialogue forums), and targeted research works (at federal level) pertinent to the overall project development objectives. Experience from the implementation of the parent project (LLRP) shows that the risks and impacts from the project's subprojects are site-specific,

small in scale and readily manageable. Hence, the environmental risk of the LLRP is rated as Substantial considering security and climate disaster risks. However, LLRP II has to come up with a more holistic approach to address climate change-related risks such as drought and flooding. This includes the introduction of a new and dedicated Disaster Risk Management and Climate Change Mitigation and Adaption component.

Social Risk Rating - Substantial

The LLRP II is expected to have positive social impacts corresponding to its development objectives including building community resilience to climate change and drought, strengthening social capital in dispute resolution, and building the capacity of the public sector to provide services. However, there are also potential social risks due to the nature of the proposed subproject activities, and the social risks for the proposed project is rated 'substantial'; the same as the parent project's social risk rating. The social risk and impacts that may result from the proposed project are (i) land acquisition especially for activities related to Component 1, 2 and 3 (such as water resource rehabilitation and development, small holder irrigation rehabilitation and development, rural access roads, livestock infrastructures (cold-chains, clinics, laboratories, diagnostic centers, markets, abattoirs, etc.); (ii) there might be a risk related to elite capture as a result of insufficient community and relevant stakeholder engagement/consultation as per the ESS10 and ESS7 requirements; (iii) the project activities may also create or exacerbate the existing social discrimination or exclusion and vulnerability of the disadvantaged and vulnerable groups in the subproject implementing areas, particularly those living in relatively remote and conflict-affected areas; (iv) social tensions/conflicts may be induced by competition over the existing natural resources as well as the proposed subproject activities including access to water and road resources as well as livestock infrastructures; (v) there might be forced labor, child labor, discriminatory hiring practices, and poor safety and health measures during the construction of infrastructures, development and rehabilitation activities as well as in the supply chain associated with the production of solar equipment and others. Besides, there may be labor influx and associated risks including risks to community health and safety including gender-based violence, sexual exploitation and abuse, and sexual harassment (GBV/SEA/SH); (vi) security risks including temporary inaccessibility of the project implementation areas for the implementation, follow up and monitoring of sub-projects activities, criminal targeting of project assets (robbery/ theft), safety hazards at project sites, demonstrations/ civil unrest and others in the implementation areas; and (vii) other possible risks and impacts on communities may include dust from construction activities, construction noise, as well as road accidents or fatalities. The prevailing conflicts will affect the implementation of the proposed project.

2. OBJECTIVES OF THE CONSULTANCY SERVICE

The technical services of an independent environmental and social consultant ("Consultant") is required to perform an **Environmental and Social Impact Assessment (ESIA)** study for the **Lowlands Livelihood Resilience Project, Phase II** ("Project"). The main objectives of the environmental and social impact assessment study are:

1. To prepare an environmental and social impact assessment for the Lowlands Livelihood Resilience Project, Phase II to ensure its environmental and social sustainability.

2. To analyze, evaluate, and recommend measures to avoid, minimize, mitigate, and compensate/offset potential environmental and social impacts of the subprojects so that it complies with the national, international, and World Bank's legislations, policies, and frameworks.
3. To prepare environmental and social management and monitoring plans for implementation and operation phases of the subprojects.
4. To conduct meaningful consultations with stakeholders including analysis of interested and affected parties and dissemination of information about the project infrastructure investment/subproject.

3. SCOPE OF WORK AND EXPECTED OUTPUT

3.1. GENERAL

In general, the Consultant will perform the following key tasks as part of the Environmental and Social Impact Assessment (ESIA) study of the -Lowlands Livelihood Resilience Project, Phase II.

1. Describe the Lowlands Livelihood Resilience Project, Phase II including its main components, ancillary components/facilities, resources input, and outputs/produces.
2. Establish baseline environmental and social settings of the subprojects influence area.
3. Establish legal and institutional frameworks under which the project is implemented and operated.
4. Identify beneficial and adverse environmental and social risks and impacts of the project during implementation and operation periods.
5. Propose suitable, practical, and site-specific enhancement and mitigation measures to avoid, reduce, mitigate, and compensate/offset the identified impacts with operational details.
6. Conduct meaningful stakeholders' consultations and analysis to capture the project affected people and parties' aspirations, concerns, and recommendations towards the planned interventions.
7. Carryout alternative analysis and compare various project planning and design options in terms of their environmental and social consequences.
8. Develop environmental and social management and monitoring plans with institutional arrangement, human resources, and budget requirement.
9. Develop specific environmental and social requirements and procedures to be included in contractor's contract documents.

Further, the details of the various activities and outputs of the ESIA are described in the below sections.

3.2. INTRODUCTION

At the onset of the environmental and social impact assessment study, the following key aspects of the Lowlands Livelihood Resilience Project, Phase II should be defined and described in detail.

- The Project (the Lowlands Livelihood Resilience Project, Phase II) background/context
- The specific project infrastructure investment/subproject background/context
- Rationale for the project infrastructure investment/subproject
- The objectives of the ESIA
- The scope of the ESIA
- Approach/methodology of the ESIA, and

- The structure of the ESIA report.

3.3. LEGAL AND INSTITUTIONAL FRAMEWORKS

A detailed review of relevant national, regional, international and World Bank regulatory frameworks shall be made to establish the setting against which the project will be implemented. The review shall include (but not limited to):

Applicable national legislations (proclamation, regulations, directives, guidelines) for water, environmental and social management including (but not limited to):

- FDRE Constitution 1995
- Biodiversity Conservation and Research Policy 1998
- Ethiopian Water Resources Management Policy, 1999
- Health Policy of Ethiopia: 1993
- National Policy on Women: 1993
- National HIV/AIDS policy, 1998
- The National Social Protection Policy 2014; and Strategy 2016
- National Policy and Strategy on Disaster Risk Management: 2013
- National occupational health and safety (OHS) Policy and strategy, 2008
- Gender Based Violence Proclamation No. 1097/2018
- Labor Proclamation No.1156/2019
- EIA Proclamation (No. 299/2002)
- Environnemental Pollution Control Proclamation No. 300-2002
- Establishment of Environmental Protection Organs (Proclamation No. 295/2002)
- Ethiopian Water Resources Management Proclamation, No. 197/2000
- Solid Waste Management Proclamation No.513/2007
- Industrial Pollution Regulation (Reg.No.159/2008)
- Hazardous Waste Management and Disposal Control Proclamation No. 1090/2018
- Public Health Proclamation No.200/2000
- Pesticide Registration and Control Proclamation (Pro.No.674/2010)
- Industrial Chemical Registration and Administration Proclamation No.1075/2018)
- Proclamation No. 209/2000 Research and Conservation of Cultural Heritage
- Public Health Proclamation No.200/2000
- The labor Proclamation No. 1156/2019
- Proclamation No. 1161/2019: Expropriation of Land
- Directive No.1/ 2008-17: Directive Issued to Determine Projects Subject to Environmental Impact Assessment,
- Regulation No. 472/2020: on Expropriation and Valuation and Compensation and Resettlement
- Protocol on Workplace Response to COVID-19 in Ethiopia 2020

- Applicable relevant regional and international conventions and protocols (ratified by Ethiopia)
- Applicable regional agreements, cooperative frameworks, guidelines, etc.
- The World Bank's Environmental and Social Framework (ESF), the relevant Environmental and Social Standards (ESSs) are:

- ESS1 Assessment and Management of Environmental and Social Risks and Impacts
- ESS2 Labor and Working Conditions
- ESS3 Resource Efficiency and Pollution Prevention and Management
- ESS4 Community Health and Safety
- ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
- ESS8 Cultural Heritage
- ESS10 Stakeholder Engagement and Information Disclosure

- Applicable guidelines from the World Bank Group's Environmental, Health, and Safety (EHS) Guidelines including:

  - The General EHS Guidelines (environmental, occupational health and safety, community health and safety, and construction and decommissioning)

Compatibility analysis of the World Bank's environmental and social requirements, as set in the ESF and EHS guidelines, vis-à-vis the national regulatory frameworks and guidelines shall be made to identify any gaps between the two that will be reflected during project implementation and operation. Further, recommendation shall be given to narrow or address the identified gaps.

In addition, the national, regional, and local institutional frameworks under which the project will be implemented shall be identified and assessed as part of the ESIA. Relevant institutions, their mandates, institutional structure, and capacities shall be identified. The key institutions include:

Ministry of Irrigation and Lowlands (MILLs)

Ministry of Agriculture (MoA)

Ministry of Health (MoH)

Ministry of Labor and Skills (MoLS)

Ministry of Women and Social Affairs (MoWSA)

Federal Environmental Protection Agency (FEPA)

Woreda Pastoral/ Agriculture/Livestock Development (WoPALD)

Woreda Environment Protection Office (WoEP)

Agricultural Transformation Agency (ATI)

Potential gaps in the institutional frameworks that need action shall be identified and described in the ESIA. The structure and capacity of the institutions responsible for implementation of the project shall be assessed in detail. Other relevant organizations and institutions shall be identified, and their structures, relationships, roles, responsibilities, and capacities shall be assessed and described.

3.4. PROJECT DESCRIPTION

The Lowlands Livelihood Resilience Project, Phase II shall be described comprehensively including the following (but not limited to):

- The Lowlands Livelihood Resilience Project, Phase II
    - The Project development objectives
    - The Project components and subcomponents
    - The Project environmental and social risks ratings
    - The Project beneficiaries
    - The Project implementation arrangement
- The specific subprojects
    - The location of the subprojects (geographic and administrative locations), with location map(s)
    - Specific site location
    - Accessibility of the site
    - The project intervention design and its main components
    - Construction materials used for construction of various components of the project including sources of the construction materials (market or own source)
    - Machineries to be used during construction and operation of the project
    - Energy consumption for the project
    - Waste generated from the project
    - Human resources requirements during implementation and operation phases
    - Project implementation activities (during pre-construction, construction, and operation/maintenance stages)
    - Project implementation schedule.

The project description shall form a basis for the ESIA including to establish environmental and social baseline conditions, identifying and prioritizing key environmental and social issues, and recommending measures to avoid, reduce, mitigate, and offset the identified impacts.

3.5. ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS

Environmental and social baseline conditions against which the project will be implemented shall be described in detail. The basic environmental and social baseline conditions of the projects influence area shall include:

- The physical environment (climate, topography, geology/geomorphology, soils, water resources, land use, land cover, etc.)
- The biological environment (flora, fauna, key biodiversity areas, natural, critical, and modified habitats)
- The socio-economic environment (demography, ethnic composition, traditionally underserved communities, social structures, religions, cultural heritages, settlement patterns/land uses, livelihood strategies, household income and employment, food security, access to social services and utilities, etc.).

The environmental and social baseline conditions shall be done through desk study and field surveys. Gaps and reliability of baseline data used for the description shall be identified and indicated in the assessment. Recommendations on baseline data that should be confirmed or validated shall be provided.

3.6. Environmental and Social Risks & Impacts

The ESIA shall identify and evaluate significance of potential environmental and social risks and impacts that will result from implementation of the subproject. The ESIA shall focus on environmental and social effects that are significant in their likelihood and consequences. Further, the impacts identified shall be both beneficial/positive and adverse/negative impacts. The nature of the impacts shall be described as direct/indirect/induced/cumulative, temporary/long-term, local/regional, and reversible/irreversible. The environmental and social risks and impacts to be identified shall consider the following key aspects:

- The project beneficial impacts shall be identified including (but not limited to) the following:
    - Improved reliability of electric supply
    - Improved access to clean and reliable electricity
    - Job opportunities and skill development
    - Improved standard of living
    - Improved security and safety
    - Benefits to education and health facilities
    - Environmental benefit
    - Poverty reduction
    - Strength institution capacity
- The project adverse impacts shall be identified including (but not limited to) the following:

Environmental

    - Air emissions/fugitive dust and ambient air quality impacts
    - Impact on water and soil quality
    - Noise and vibration impacts
    - Impacts of waste generation and disposal
    - Asbestos, e-waste and other hazardous waste
    - Impact due to non-hazardous waste
    - Impact of loss of soil and land degradation
    - Impact due to clearing of vegetation cover and disturbance of habitat
    - Impact of biodiversity loss

ii. Occupational health and safety

- Physical hazards including (i) rotating and moving equipment/machineries, (ii) noise and vibration, (iii) electrical hazard, (iv) eye hazards due to flying debris, (v) hazards from hot works, (vi) traffic accidents from the site traffic and offsite movements of project vehicles/trucks, (vii) work-at-height, (viii) excavation hazards, (ix) ergonomics, repetitive motion, manual handling, (x) working environment temperature and illumination, (x) poor housekeeping, slip, trip, fall
- Chemical hazards including (i) poor air quality, (ii) fire and explosions, (iii) hazardous chemical
- Biological hazards including (i) exposure to wastewater, (ii) transmittable diseases/infections
- Special hazard environments such as (i) confined space, (ii) lone and isolated worker

iii. Community health and safety

- Water quality and availability
- Structural safety of project interventions
- Fire risk
- Traffic risk
- Risk from hazardous materials/wastes during transport and disposal
- Transmittable disease and public health impact

iv. Social

- Social conflicts/dissatisfaction on services
- Conflict between local and migrant workers
- Labor influx
- Impact on child labor and young worker

v. Risks related to development and operation of ancillary facilities (if any).

- The risks/impacts shall be segregated by project phases, i.e., (i) pre-construction, (ii) construction, (iii) operation and maintenance, and (iv) decommissioning.
- In addition to the direct and/or indirect impacts, the cumulative impacts (aggregate, incremental, and synergistic impacts) of project implementation in the project area of influence shall be comprehensively identified. The cumulative project impacts shall be distinguished between their national, regional, and local effects.
- The environmental and social impacts shall consider identified challenges during project planning, design, and implementation.
- The identified environmental and social impacts shall be prioritized based on their risk significance, magnitude, spatial and temporal extent.

3.7. Environmental and Social Mitigation Measures

Potential environmental and social risks/impacts that will result from project implementation and operation shall be provided with recommendations on impacts enhancement or mitigation measures. The recommended measures shall be based on the risk mitigation hierarchy of avoidance, reduction,

mitigation, and compensation/offsetting. The proposed mitigation measures shall bring the adverse impacts to the levels required by national standards and guidelines, the World Bank environmental and social framework and EHS guidelines, and good international industrial practice. The recommended mitigation measures shall also be commensurate with the level or significance of the adverse impacts. The mitigation measures should have operational details to enable their implementation. The mitigation measures shall be presented as environmental and social requirements or clauses to be included in contractors' works contract documents.

3.8. Environmental and Social Management and Monitoring Plans

The ESIA should develop an environmental and social management plan outlining procedures and institutional responsibilities to manage the identified impacts. The environmental and social management plan shall include:

- Potential environmental and social benefits and impacts resulting from project implementation (identified in the earlier exercise)
- Type, extent, and significance of the benefits and impacts
- Recommended enhancement measures for the beneficial/positive impacts
- Recommended mitigation measures for the adverse impacts to enable the sustainable implementation and operation of the project
- Location of the mitigation measures within the project setup
- Frequency of mitigation or measures implementation timeframe
- Success indicators for the mitigation measures
- Institutional responsibility for implementation of the enhancement or mitigation measures
- Capacity building recommendations for the institutions
- Estimate of measures implementation budget.

An environmental and social monitoring plan for project implementation and operation shall be recommended in the ESIA. Main components of the monitoring plan are:

- Potential environmental and social benefits and impacts resulting from project implementation (identified in the earlier exercise)
- Recommended enhancement and mitigation measures
- Key project parameters or aspects to monitor
- Specific and measurable indicators
- Monitoring location, if applicable
- Measurement methods and/or equipment
- Frequency of monitoring
- Responsible institutions/parties for monitoring
- Monitoring budget.

3.9. Capacity Development and Training

For effective implementation of the environmental and social management and monitoring plans, the existing institutional capacity of the concerned parties shall be assessed and measures to strengthen their capacities (such as training) shall be recommended.

3.10. Identifying and Analysis of Alternatives

The ESIA shall identify (along with the project design team) various project implementation alternatives including:

- The 'no-action' option which considers maintaining the current status quo in the project influence area
- The 'proposed project' option including all of its technologies, facilities and activities
- 'Other options' to be identified as part of the ESIA which are deemed to achieve the overall objectives of the project while using different technology, methodology, and facilities.

A multi-criteria approach shall be used for analysis of the identified project alternatives.

3.11. Stakeholder Identification, Consultations, and Grievance Redress mechanism

Stakeholder identification and analysis shall be done as part of the environmental and social impact assessment with the objective of involving the stakeholders in the decision-making process. The main tasks include:

- Identify project stakeholders including government bodies/authorities, beneficiary communities, indigenous people, community leaders, civil society organizations, non-governmental organizations, women groups, youth groups, academia, etc.
- Disclose project information to the stakeholders
- Consult on stakeholders' understanding, views, aspirations, and recommendations on the project
- Recommend ways to integrate the findings of the stakeholder engagement into the project plan, design, and implementation.

Project stakeholders may have grievances during implementation and operation stages and thus stakeholders should be given a means to voice their grievances and obtain redress. The ESIA shall device a grievance redress mechanism appropriate for the project and local communities.

3.12. Conclusions and Recommendations

Conclusions shall be drawn from the key findings of the ESIA. Further, the ESIA shall provide recommendations based on the findings of the assessment. The recommendations shall, among other points, include:

- Promoting integration and collaboration on environmental and social management by the various stakeholders participating during the project implementation and operation
- Strengthening institutions responsible for implementation and management of environmental and social issues
- Capacity building needs for institutions responsible for environmental and social management
- Dissemination and disclosure of environmental and social information
- Environmental and social requirements and management measures to be included in the works contract documents
- Recommendations on other key environmental and social management issues.

4. DELIVERABLES

The documents to be prepared as part of the Environmental and Social Impact Assessment (ESIA) study are *an Inception Report, Draft* and *Final Environmental and Social Impact Assessment (ESIA)* Reports. The Consultant should prepare the draft and final versions of the ESIA to the desired and acceptable quality to avoid several iterations of the plan. Detailed description and contents of the reports are presented in the below sections.

4.1.1. Inception Report

An *Inception Report* which presents the consultant's specific and revised work plan, proposed stakeholders consultation plan, and the availability of agreed experts for the duration of the assignment, shall be submitted within a week of commencement of the assignment.

4.1.2. Environmental and Social Impact Assessment (ESIA) Report

Draft and final *Environmental and Social Impact Assessment (ESIA)* Reports shall be prepared consisting of a detailed summary of the information collected and analysis made (see *Annex A* for suggested ESIA report outline). The ESIA reports shall consist of:

- The project background, rationale and objectives
- The objectives, scope, approach, and structure of the ESIA
- Relevant legal and institutional frameworks
- Description of the project and its activities
- Environmental and social baseline conditions
- Environmental and social risks and impacts
- Environmental and social mitigation, management, and monitoring measures
- Environmental and social management and monitoring plans
- Analysis of alternatives
- Stakeholders' analysis and disclosure plan
- Conclusions and recommendations.

The draft ESIA report shall be presented to stakeholders (in a workshop to be organized) to solicit comments and suggestions. The final ESIA report shall be prepared incorporating the client's and other stakeholders' comments and suggestions on the draft ESIA. Both documents are to be written in English and the documents shall be electronically submitted in *MS Word* and *PDF* file formats.

5. TIMELINE OF THE CONSULTANCY SERVICE

The table below summarizes the timeline of the consultancy service.

No.	Deliverable	Timeline*

1	Inception Report	1 week from the signing of the contract
2	Draft Environmental and Social Impact Assessment Report	6 weeks from the signing of the contract
3	Final Environmental and Social Impact Assessment Report	1 week after receiving comments on the Draft ESIA Report

*From contract effective date

6. CONSULTANT'S TEAM AND QUALIFICATIONS

The Consultant's team shall be comprised of an Environmental Specialist and a Social Specialist. The qualifications and input of the Consultant's team are indicated in the table below.

	Consultant	**Qualifications**	**Input (workdays)**
1	Environmental Specialist	– Master's (or above) in a field relevant to environment studies such as environmental science, environmental engineering, etc … – At least 10 years of experience in environmental assessment, management, monitoring, and audit – Experience in preparation of Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Environmental and Social Monitoring Plan, Environmental Audit, and other related documents, preferably for large-scale development partner funded infrastructure projects – Knowledge on country legal and institutional framework – Work experience in/with World Bank funded projects and knowledge of the World Bank ESF provisions/requirements – Fluency in English, particularly in written and spoken English	35
2	Social Specialist	– Master's (or above) in a field relevant to socio-economic studies such as sociology, social science/studies, anthropology, community development, gender studies, etc,	35

		– At least 10 years of experience in social assessment, management, monitoring, and audit – Experience in preparation of Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Environmental and Social Monitoring Plan, Social Audit, Resettlement Plan (RP), Stakeholder Engagement Plan (SEP), and other related documents, preferably for large-scale development partner funded infrastructure projects – Knowledge on country/ regional legal and institutional framework – Experience in conducting stakeholder engagement – Work experience in/with World Bank funded projects and knowledge of the World Bank ESF provisions/requirements – Fluency in English, particularly in written and spoken English	

7. CONSULTANT'S PROPOSAL

The Consultant's proposal for the Environmental and Social Impact Assessment (ESIA) should contain the sections (information) listed below and the proposal (i.e., main sections excluding appendices) should not exceed 15 pages.

1. **Work Approach/Methodology -** The scope of work should include a description of the specific activities that will be performed to accomplish the required tasks identified in this Terms of Reference. This should include any proposed site visits/surveys, documents to be reviewed, interviews, etc. If the Consultant feels that additional tasks or components within the scope of work are required or warranted, these should be stated and delineated as "Optional Tasks".
2. **Project Team and Qualifications -** This should include the name of the principal staff members (indicated above). Qualifications of staff should include relevant technical capabilities, previous relevant project experience, specific in-country and regional experience and knowledge, and specific language skills.
3. **Schedule** - A proposed schedule for performance of the ESIA must be presented with breakdown of specific tasks and activities. The schedule must indicate the proposed start and completion dates for each activity listed in the "Scope of Work and Expected Output" section of this Terms of Reference and any important or specific project milestones (e.g., report submittal, etc.).
4. **Estimated Costs** - A total cost of the consultancy service must be provided. Breakdown of the estimated costs by tasks/activities must also be presented (e.g., tabular format) and should include Direct Labor Costs (number of days per staff and their associated unit costs) and reimbursable expenses (e.g., travel, per diem, etc.). Any assumptions related to the estimated costs must be clearly stated. If any additional *Optional Tasks* are recommended, then a separate cost estimate must be provided.

8. CLIENT'S SUPPORT

The Client will support the Consultant in the following matters:

- Access to relevant technical study reports and other documents including the Project Appraisal Document (PAD), the Environmental and Social Management Framework (ESMF), and other available documents. These documents are currently at draft stage and will be shared with the Consultant when finalized.
- Support (whenever possible) the Consultant's field visit coordination and liaison with the concerned authorities in the project influence area to gather information relevant to the project.
- Support (whenever possible) the Consultant in coordinating stakeholders' consultations and liaison with some of the stakeholders.
- Support (whenever possible) the Consultant in logistics such as travel, meeting facilities, amenities, etc …

9. ANNEX A : Indicative Outline for Environmental and Social Impact Assessment (ESIA) Report

EXECUTIVE SUMMARY

1 INTRODUCTION
- 1.1 Project Background/Context
- 1.2. Rationale of the project
- 2.2. Objectives of the ESIA
- 3.2. Scope of the ESIA
- 4.2. Approach/Methodology of the ESIA
- 5.2. Structure of the ESIA

2 LEGAL AND INSTITUTIONAL FRAMEWORKS

2.1 Policies and Strategies

2.2 Legal Framework

2.3 International Conventions and Protocols

2.4 Regional Agreement and Cooperative Frameworks

2.5 World Bank Environmental and Social Framework (ESF)

- 2.6 Institutional Framework, Structure and Capacity

3 PROJECT DESCRIPTION
- 1.1 Project Development Objectives
- 2.1 Project Components and Subcomponents
- 3.1 The Project Beneficiaries
- 4.1 Project Implementation Arrangement
- 5.1 Project Environmental and Social Risk Ratings
- 6.1 Specific Infrastructure Investment/Subproject

4 ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS

- 4.1 Physical Conditions
- 5.1 Biological Conditions

4.3 Socio-economic Conditions

2. ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

4.1 Beneficial/Positive Environmental and Social Risks and Impacts
5.2 Adverse/Negative Environmental and Social Risks and Impacts

5.2.1 Environmental

5.2.2 Occupational Health and Safety

5.2.3 Community Health and Safety

5.2.4 Social

5.2.5 Ancillary Facilities

3. ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES
ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLANS

4.1 Environmental and Social Management Plan (ESMP)
5.1 Environmental and Social Monitoring Plan
4. CAPACITY DEVELOPMENT AND TRAINING
9 ANALYSES OF ALTERNATIVES

10 STAKEHOLDERS CONSULTATIONS

11 CONCLUSIONS AND RECOMMENDATIONS

11.1 Conclusions
11.2 Recommendations

ANNEXURE

Annex 1 List of the Consultant's Team

Annex 2 References

Annex 3 Records of Stakeholders Consultations

Annex 4 Environmental and Social Clauses to be Included in Contract Documents

Annex 5 List of Associated Reports

Annex 3. Environmental and Social Management Plan (ESMP) Template

Sub-project activities of LLRP II, particularly under Components 1, 2 and 3 will involve extensive civil works and agricultural activities that require engaging large number of labor. Environmental and social risks and impacts are strongly linked to subproject location and scope of activities. This ESMP should be used during preparation of ESIA and needs to be customized for each specific subproject location and activity.

1. Subproject Information

Subproject Title:	
Estimated Cost:	
Start/Completion Date:	

2. Site/Location Description

This section concisely describes the proposed location and its geographic, ecological, social and temporal context including GPS points, any offsite investments that may be required (e.g., access roads, water supply, etc.). Please attach a map showing relative location of the site onto the ESMP.

3. Subproject Description and Activities

This section lists all the activities that will take place under the subproject, including any associated activities (such as building of access roads, flood protection structures, small irrigation dams, clinics, storage facilities, etc…).

4. ESMP Matrix: Risk and Impacts, Mitigation, Monitoring

This section should identify anticipated site-specific adverse environmental and social risks and impacts; describe mitigation measures to address these risks and impact; and list the monitoring measures necessary to ensure effective implementation of the mitigation measures. It may draw from the ESMF's pre-identification of potential risks/impacts and mitigation measures, as applicable, and drill down further to ensure relevance and comprehensiveness at the site-specific level. For subprojects involving construction, two sets of tables may be needed, for the construction phase and the operation phase.

	Risk Mitigation and Management Measures	**Impact Mitigation**	**Impact/Mitigation Monitoring**

Anticipated E&S Risks and Impacts		Responsible body	Location/Timing/Frequency	Parameter to be monitored	Methodology, including Location and Frequency	Responsibility
General ESMP for Infrastructure/civil work in Components 1 and 2 (Constructions and rangeland restoration) Subprojects						
1. Natural habitat, Protected area, Cultural Heritage	Avoid routes and sites that are known to have important ecosystems and natural habitats of significant importance for biodiversity conservation, Biosphere reserves, National parks, and cultural heritage sites (Planning and Design) -When avoidance is not possible, consult relevant authorities, local communities, and renowned experts, religious representatives, for the best alternatives to minimize and reduce the impacts. (Planning and Design) -Conduct an appropriate ESIA, observe all relevant legislations and prepare a ESMP to mitigate the impacts (Planning and Design) -Secure necessary legal authorization from the relevant government, religious and local institutions before starting project activities (Planning and Design)	FPCU, RPCU and contractors				
2. Noise during construction	-Plan activities in consultation with communities so that noisiest activities are undertaken during periods that will result in least disturbance. (Planning phase) -Use when needed and feasible noise-control methods such as fences, barriers or deflectors (such as muffling devices for	RPCU, WPUC Contractors Implementing partners				

	combustion engines or planting of fast-growing trees). (Implementation phase) -Minimize project transportation through community areas. Maintain a buffer zone (such as open spaces, row of trees or vegetated areas) between the project site and residential areas to lessen the impact of noise to the living quarters. (Implementation phase)					
2. Soil erosion	-Schedule construction during dry season. (Planning phase) -Contour and minimize length and steepness of slopes. (Implementation phase) -Use mulch, grasses or compacted soil to stabilize exposed areas. (Implementation phase) -Cover with topsoil and re-vegetate (plant grass, fast-growing plants/bushes/trees) construction areas quickly once work is completed. (Post-Implementation phase) -Design channels and ditches for post-construction flows and line steep channels/slopes (e.g., with palm frowns, jute mats, etc.). (Post-Implementation phase)	Contractors Implementing partners				
3. Air quality	-Minimize dust from exposed work sites by applying water on the ground regularly during dry season. (Implementation phase) -Avoid burn site clearance debris (trees, undergrowth) or construction waste materials. (Implementation phase) -Keep stockpile of aggregate materials covered to avoid suspension or dispersal of	Contractors Implementing partners				

	fine soil particles during windy days or disturbance from stray animals. (Implementation phase) -Reduce the operation hours of generators /machines /equipment /vehicles. (Implementation phase) -Control vehicle speed when driving through community areas is unavoidable so that dust dispersion from vehicle transport is minimized. (Implementation phase)					
4. Water quality and availability	-Activities should not affect the availability of water for drinking and hygienic purposes. (Implementation phase) -No soiled materials, solid wastes, toxic or hazardous materials should be stored in, poured into or thrown into water bodies for dilution or disposal. (Implementation phase) -Avoid the use of wastewater pools particularly without impermeable liners. -Provision of toilets with temporary septic tank. (Implementation phase) -The flow of natural waters should not be obstructed or diverted to another direction, which may lead to drying up of river beds or flooding of settlements. (Implementation phase) -Separate concrete works in waterways and keep concrete mixing separate from drainage leading to waterways. (Implementation phase)	Contractors Implementing partners				
5. Solid and hazardous waste	-Segregate construction waste as recyclable, hazardous and non-hazardous waste. (Implementation phase)	Contractors Implementing partners				

	-Collect, store and transport construction waste to appropriately designated/ controlled dump sites. (Implementation phase) -On-site storage of wastes prior to final disposal (including earth dug for foundations) should be at least 300 metres from rivers, streams, lakes and wetlands. (Implementation phase) -Use secured area for refuelling and transfer of other toxic fluids distant from settlement area (and at least 50 metres from drainage structures and 100 metres from important water bodies); ideally on a hard/non-porous surface. (Implementation phase) -Train workers on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear and other protective equipment for protection in handling highly hazardous materials. (Implementation phase) -Collect and properly dispose of small amount of maintenance materials such as oily rags, oil filters, used oil, etc. Never dispose spent oils on the ground and in water courses as it can contaminate soil and groundwater (including drinking water aquifer). (Implementation phase) -After each construction site is decommissioned, all debris and waste shall be cleared. (Post-Implementation phase)					
6. Asbestos	- An asbestos survey will be performed by specialized and accredited personnel.	Contractors Implementing partners				

	-If asbestos or asbestos containing materials (ACM) are found at a construction site, they should be clearly marked as hazardous waste. (Implementation phase). -The asbestos should be appropriately contained and sealed to minimize exposure. (Implementation phase). -Prior to removal, if removal is necessary, ACM should be treated with a wetting agent to minimize asbestos dust. (Implementation phase) -If ACM is to be stored temporarily, it should be securely placed inside closed containers and clearly labeled. (Implementation phase) Removed ACM must not be reused (Implementation and post-implementation phase)					
7. Health and Safety	-When planning activities of each subproject, discuss steps to avoid people getting hurt. (Planning phase) It is useful to consider: -Construction place: Are there any hazards that could be removed or should warn people about? -The people who will be taking part in construction: Do the participants have adequate skill and physical fitness to perform their works safely?	RPCU, WPCU Contractors Implementing Partners				

	-The equipment: Are there checks you could do to make sure that the equipment is in good working order? Do people need any particular skills or knowledge to enable them to use it safely? -Electricity Safety: Do any electricity good practices such as use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measure, aware on identifying burning smell from wires, etc. apply at site? Is the worksite stocked with voltage detectors, clamp meters and receptacle testers? -Mandate the use of personal protective equipment for workers as necessary (gloves, dust masks, hard hats, boots, goggles). (Implementation phase) -Follow the below measures for construction involve work at height (e.g. 2 meters above ground (Implementation phase): -Do as much work as possible from the ground. -Do not allow people with the following personal risks to perform work at height tasks: eyesight/balance problem; certain chronic diseases – such as osteoporosis, diabetes, arthritis or Parkinson's disease;					

	certain medications – sleeping pills, tranquillisers, blood pressure medication or antidepressants; recent history of falls – having had a fall within the last 12 months, etc. -Only allow people with sufficient skills, knowledge and experience to perform the task. -Check that the place (eg a roof) where work at height is to be undertaken is safe. -Take precautions when working on or near fragile surfaces. -Clean up oil, grease, paint, and dirt immediately to prevent slipping; and -Provide fall protection measures e.g. safety hardness, simple scaffolding/guard rail for works over 4 meters from ground. -Keep worksite clean and free of debris on daily basis. (Implementation phase) -Provision of first aid kit with bandages, antibiotic cream, etc. or health care facilities and enough drinking water. (Implementation phase) -Keep corrosive fluids and other toxic materials in properly sealed containers for collection and disposal in properly secured areas. (Implementation phase) -Ensure adequate toilet facilities for workers from outside of the community. (Implementation phase) -Rope off construction area and secure materials stockpiles/ storage areas from the public and display warning signs including at unsafe locations. Do not allow					

	children to play in construction areas. (Implementation phase) -Ensure structural openings are covered/protected adequately. (Implementation phase) -Secure loose or light material that is stored on roofs or open floors. (Implementation phase) -Keep hoses, power cords, welding leads, etc. from laying in heavily travelled walkways or areas. (Implementation phase) If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours, if needed. (Implementation phase) -Control driving speed of vehicles particularly when passing through community or nearby school, health centre or other sensitive areas. (Implementation phase) -During heavy rains or emergencies of any kind, suspend all work. (Implementation phase) -Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning. (Post-Implementation phase)					
8. Biodiversity	-No cutting of trees or destruction of vegetation other than on construction site. [Implementing agency] will procure locally sourced materials consistent with traditional construction practices in the communities. (Planning phase)	Contractors Implementing partners				

	-No hunting, fishing, capture of wildlife or collection of plants. (Implementation phase) -No use of unapproved toxic materials including lead-based paints, un-bonded asbestos, etc. (Implementation phase) -No disturbance of cultural or historic sites (Planning and implementation phases)					
Specific ESMP for infrastructure subprojects						
Buildings, Stores, Marketing stalls,						
In general	-Provide adequate drainage in the building's immediate surroundings to avoid standing water, insect related diseases (malaria, etc.) and unsanitary conditions. (Implementation phase) -Include sanitary facilities such as toilets and basins for hand-washing. (Implementation phase) -Restrict use of asbestos cement tiles as roofing. (Implementation phase) Tiled floors are preferred for easier cleaning and more hygienic. (Planning and implementation phases)	Contractors Implementing partners				
Shelters, community centres, Cold-chain stores, schools, kindergartens.	-Design of schools, community centres, markets should follow relevant requirements on life and fire safety required by National Building Codes and relevant guidelines from the concerned Ministries. (Planning phase) -Cold-chain stores, must have standards that require for a cold storage with specific temperature and material specifications, designs and locations (Planning pahse)	FPCU, RPCU, Contractors and implementing partners				

	-Schools: Maximize natural light and ventilation systems to minimize needs for artificial light and air conditioning; use large windows for bright and well-ventilated rooms. (Planning phase)					
Roads, Bridges and Jetties						
Roads connecting villages, between villages and townships.	General Considerations: -Control placement of all construction waste (including earth cuts) to approved disposal sites (at >300 m from rivers, streams, lakes, or wetlands). If we do have to dispose spent oil unexpectedly, we should use safe disposal method capable by rural community. For example- burning spend oil as fuel. (Implementation phase) -Erosion control measures should be applied before the rainy season begins, preferably immediately following construction. Maintain, and reapply the measures until vegetation is successfully established. (Implementation and post-implementation phases) -Sediment control structures should be applied where needed to slow or redirect runoff and trap sediment until vegetation is established. (Implementation and post-implementation phases) -Avoid road construction in unstable soils, steep slopes and nearby river banks. Additional measures (see the section below) need to be applied should there be no alternatives for road alignments. (Planning phase)	Contractors Implementing partners				

	-Protect slopes from erosion and landslides by the following measures (Implementation phase): -Indigenous Species, fast-growing grass on slopes prone to erosion. These grasses help stabilise the slope and protect soil from erosion by rain and runoff. Locally available species possessing the properties of good growth, dense ground cover and deep root shall be used for stabilisation. -Provide interceptor ditch, particularly effective in the areas of high intensity rainfall and where slopes are exposed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion. -For steep slopes, a stepped embankment (terracing) is needed for greater stability. -Place a retaining wall at the lower part of the unstable slope. The wall needs to have weeping holes for drainage of the road sub-base, thus reducing pressure on the wall. -Rocks (riprap) can be used in addition to protect the slope. -Prevent uncontrolled water discharge from the road surface by sufficiently large drainage ditches and to drain water away from the down slope.	Contractors Implementing partners				
Bridges (less than 20	-Erosion protection (Planning and implementation phases): -The main method of slope and erosion	Contractors Implementing partners				

meters) and Jetties	protection is the construction of gabions (gravity walls that support jetties bankment or slopes which have a potential to slip) and ordinary stone pitching. -The slope of gabions should be in the ratio of at least 1 vertical: 2 horizontals. Flatter slopes may be adopted depending on the site terrain. -The filling of the gabions should be from strong and competent rock which is laid very closely packed to maximize the weight. -Bracing wire should be used to prevent the gabion bulging out. The bracing wire should be placed at each third of the gabion height. -The gabions should be firmly anchored into the ground by founding the gabions below the expected scour depth level. -In cases where stone pitching is not provided, the top layer should be covered by soil to encourage the growth of grass and the stabilization of the slopes. -Stone pitching may be provided as the only erosion protection measure in those cases where the erosion potential is deemed minimal. Stone pitching is not very resistant to strong water current and is mainly used as top finish on gabion walls.					
	Water Quality and Fauna (Implementation phase): -Restrict duration and timing of in-stream activities to lower flow periods (dry season) and avoid periods critical to biological cycles of valued flora and fauna (e.g., spawning) -Water flow diversion should be avoided; if	Contractors Implementing partners				

	it is impossible to avoid, impacts should be assessed and mitigation proposed. -Establish clear separation of concrete mixing and works from drainage areas and waterways.					
Water Supply						
Shallow Groundwater Wells	-Site wells so that appropriate zone of sanitary protection can be established. (Planning phase) -Equip with slab around the well for easy drainage, a crossbeam and a pulley to support the use of only one rope and bucket for collecting water. One rope and bucket is more hygienic for the well and water. (Implementation phase) -Install steel steps/rungs (inside wall of a deep well) for maintenance and in case of emergency. (Implementation phase) -A groundwater well usually has a wide open water area. It is necessary to provide a cover/roof/wire mesh on top to protect this area from falling leaves or debris. (Implementation phase) -Wells should always be located upstream of the septic tank soak-away. Build the soak-away as far away as possible from the well (minimum 15 m/50 feet) as it can influence the quality of the drinking water when it is too close.–(Planning and implementation phases) -Before using a new water source, test water quality and when intended for potable purposes ensure water meets the national drinking water standard. Water quality	Contractors Implementing partners				

	should also be monitored in the case of all well rehabilitation. (Post implementation phase)					
Spring	-Every spring capture should be equipped with a filter and a sand trap. Add a wall between the inflow and the outlet pipe to create chamber for settling out sand; build the wall with a notch (lowered section) for controlled flow. Sand must be cleaned out periodically (operation and maintenance). (Implementation and post-implementation phases) -Collection basin for spring capture needs to have a perforated PVC pipe (holes diameter 2mm) to be used as a screen for the water intake. Alternatively, a short pipe with wire mesh (screen) around the open end should be provided. (Implementation phase) -Collection basin needs to have a fence to protect the spring from public access and risk of contamination; and a roof/cover over the spring to prevent leaves or other debris from entering the basin. (Implementation phase)	Contractors Implementing partners				
Rainwater harvesting	-Rainwater storage reservoir should be intact, connected to roof gutter system, with all faucets and piping intact. (Implementation phase) -If distribution pipes are attached into the storage reservoir, install the distribution pipes 10cm above the storage/tank bottom for better use of the storage capacity. (Implementation phase) -Cover must be fitted tightly onto the top of the storage reservoir to avoid overheating	Contractors Implementing partners				

	and growth of algae (from direct sunlight), and to prevent insects, solid debris and leaves from entering the storage tank. (Implementation phase) -A ventilation pipe with fly screen should be placed in the cover to help aerate the tank/reservoir which is necessary for good water quality. (Implementation phase) -Roof gutters need to be cleared regularly, as bird and animal feces and leaf litter on roofs or guttering can pose a health risk if they are washed into the reservoir tank. (Post-implementation phase) -Reservoir tanks need an overflow so that in time of really heavy rain, the excess water can drain away. The overflow should be designed to prevent backflow and stop ermin/rodents/insects entering the system. A good design will allow the main storage tank to overflow at least twice a year to remove built up of floating sediment on the top of the stored water and maintain good water quality. (Planning and implementation phases)					
Installation / Rehabilitation of pipelines	Preventing contamination at water sources: -Build a structure with roof over the water source to prevent leaves or other debris from entering into the basin. (Implementation phase) -A fence is needed to protect the water sources (springs particularly) from public access and risk of contamination. (Implementation phase)	Contractors Implementing partners				

	-The sand/gravel filter traps sediment before the spring flow enters the collection chamber and has to be changed during periodical maintenance. (Implementation and post-implementation phases) Pipe Laying: -PVC water transmission and distribution piping need to be buried underground (coverage 50cm minimum) to prevent pipe against external damage (e.g. passing vehicles, solar UV radiation, etc.). Exposing PVC pipe to UV radiation causes the plasticizer in the PVC pipe to evaporate causing loss of integrity and brittleness. (Implementation phase) -Pipe shall be laid in a straight line, over a constantly falling slope. (Implementation phase) -When conditions do not allow piping to be buried (i.e. pipe is used above ground), then metal pipe must be used, and supported/braced as excessive movement may lead to leaks and breaks. (Implementation phase) -Outlet pipes and fittings from water storage/basin shall not be PVC pipe due to exposure to solar UV/sunlight. Metal piping and fittings are preferred. (Implementation phase) -When the distribution pipes are laying via forest area, the following considerations are needed (Planning and implementation phases): • The route must be considered with					

	minimum effects of changing the existing situations of the forest as well as the least habitats area of the animals -Setbacks distances from important natural features (e.g. mineral licks, wildlife features such as nest, leks, dens, staging areas, lambing areas, calving areas) to conserve wildlife values should be kept, if necessary.					
Electrification/Solar Panels Installation						
Solar power supply	-Avoid solar installation sites that create visual obstruction and areas of public importance (biodiversity, social gathering, etc…) -Tidy wiring for easy maintenance and reduces the risk of accidents. (Implementation phase) -Need to raise community awareness on electrical hazards and health and safety concerns, as well as proper maintenance of solar panels (Implementation and post-implementation phases) -Need to raise community awareness on proper disposal of solar panels, specifically avoiding disposal of panels near water Bodies. -Establish e-waste management system in the project and properly handle and dispose e-waste (Post-implementation phase)	FPCU, RPCU Contractors and Implementers				
Access to Sanitation In Construction Camps, and Other Buildings						
Public latrines/toilets	-All toilets must have a septic tank made from non-permeable material such as concrete, plastic or fiberglass to provide primary treatment of fecal waste.	Contractors Implementing partners				

	(Implementation phase) -PVC pipe used to connect pour-flush toilet to a septic tank must be buried underground or covered over (with cement) for protection and to prevent exposure to sunlight. (Implementation phase) -Metal pipe is a preferred choice to be used as the gas vent pipe on septic tanks. Never use PVC pipe as it is unable to withstand long-term exposure to sunlight. (Implementation phase) -A toilet should be at least 20 meters from water sources (well, spring, river). (Planning and implementation phases)					
Wastewater Systems from Buildings, Cold-Storage Facilities						
Wastewater sewerage and treatment	-Septic tanks must have a vent pipe to prevent the build-up of gas inside the chamber and shall have a 'manhole' that provides access inside the tank if needed. (Implementation phase) -Ensure that the septic tanks have two chambers: first chamber is for settling of sludge, and the second chamber is for aerobic treatment. These chambers will generally treat wastewater better. Partially treated septic tank effluent can pollute groundwater and surface water. (Implementation phase) -Do not discharge septic tank effluent to an open drain or other surface water. The effluents need to be treated before final disposal. This may be achieved through: (i) an underground leach field, (ii) a vegetated leach field, or (iii) a pit for soaking away.	Contractors Implementing partners				

	(Implementation phase) -Community awareness should be raised so that the community inspects the septic tanks periodically and ensures that the septic tanks are emptied every few years for the tank to continue to function properly. (Implementation and post-implementation phases)					
Solid Waste Management	-Solid waste depots/disposal need to be located on hard-standing areas that prevent waste entering surface or groundwater. (Implementation phase) -Waste depots/storage/disposal should be contained, sealed and/or roofed/covered to prevent storm water contamination. Wastes need to be emptied regularly. (Implementation phase)	Contractors Implementing partners				
B, ESMP **for Component 2 and 3 (Rangeland Management, Climate Resilience and Livelihood) Support Subprojects**						
General on interventions from component 3 (Climate resilience and livelihoods)						
To minimize water pollution	-Avoid any activity causing excessive erosion and turbidity. (Planning phase) -Keep waste and hazardous materials away from surface water bodies, drinking water sources and do not dispose of waste in creeks or rivers. (Implementation phase) -Properly dispose contaminated wastewater and hazardous materials, if any, passing through conventional treatment process such as screening, settling, oil-water separation, etc. (Implementation phase) -Avoid contamination of drinking water source (e.g. well) from inflow of waste	Contractors implementing partners				

	materials and pollutants. -(Implementation phase) -Avoid—large-scale animal farming and aquaculture activities in water catchment area. (Planning and implementation phases)					
To minimize air pollution	-Limit burning post-harvest waste material in close proximity to village; choose days with limited wind for burning; limit number and size of areas for burning per day; do not burn non-agricultural waste such as garbage, plastics or animal waste. Rather than burning post-harvest waste, consider alternative good practices such as composting to produce organic fertilizer or utilization as fuel for bioenergy production. (Planning and implementation phases) -Reduce dust generation through application of water where practical. (Implementation phase) -Limit idling of vehicles, machineries equipment. (Implementation phase)	Contractors implementing partners				
To minimize noise disturbance	-Repair and maintain machineries for safe and quiet operation. (Implementation phase) -Avoid emission of continuous/noisy sounds during working. (Implementation phase)	Contractors implementing partners				
To minimize soil pollution	-Store petrol / diesel on impermeable floor (e.g. compacted clay, concrete floor) and surrounded by an embankment or berm. (Implementation phase) -Storage for hazardous materials including petroleum should be above ground and isolated. (Implementation phase) -Establishing an appropriate disposal area					

	for hazardous materials and waste where prevents hazardous material from leaching into the soil and surface water. (Implementation phase) -Do not dispose hazardous wastes anywhere except in areas designated by pollution control agencies. (Implementation phase)					
To minimize impact from non-agricultural waste generation	-Collect waste systematically, store and dispose at appropriately designated dump sites, far away from households. (Implementation phase) -Reuse and recycle appropriate and viable materials. (Implementation phase) -Segregate hazardous and non-hazardous wastes. (Implementation phase)	Contractors implementing partners				
To minimize emergency risks	-Build appropriately designed infrastructure safe from natural hazards. (Planning and implementation phases) -Avoid areas prone to natural hazard events (flooding, spring tides, etc.), steep slopes and vulnerable to erosion and landslides, etc (Planning and implementation phases)	FPCU, RPCU Contractors implementing partners				
To secure the safety	-Proper use and management of hazardous materials and waste. (Implementation phase) -Awareness of dangers on working area, occupation, health and safety equipment through signage where applicable. (Implementation phase) -Lock storage of fuels, paints, and chemicals (Implementation phase)	Contractors implementing partners				
Farmland and pasture development from irrigation						

To minimize disease outbreaks; threats to biodiversity from expansion of farmlands and pasture from irrigation	-Adhere to quarantine procedures when introducing new species of plants and animals (with approval from competent authority) (Planning phase) -Exert caution not to introduce invasive species to the site (Planning phase) -Conduct an appropriate ESIA and prepare project specific ESMP to address anticipated risks (Implementation phase) -Conduct regular monitoring of health status of newly introduced species and local breads; (Operation phase) -Report immediately to local vet experts on incidences of unusual sickness of the new breeds or local breeds; (Operation phase) -Isolate affected animals until proper diagnosis is done and measures are taken	Contractors implementing partners				
To minimize depletion of groundwater due to excessive withdrawal	-Put in place operational manuals and guidelines to facilitate proper operation of water points (Implementation phase) -Train and provide necessary equipment to water point operators -Provide limits of extraction to users and operations per regular operational hours and quantity -Monitor ground water levels to avoid the risk of early depletion of discharge potential	Contractors implementing partners				
To minimize general impact of agriculture	-Use sustainable agricultural practices / approaches / technologies. (e.g., Agroforestry Practices, Poly-cultures and Crop rotation, Integrated Pest Management (encouraging the predators of crop-eating pest insects such as birds and bats), etc.) (Planning and implementation phases)	Contractors implementing partners				

	-Reduce top-soil losses from erosion and the reduction in soil fertility. (Cover Crops and Mulches (Establishing leguminous ground cover and applying plant residues), Grass Barriers (planting grass in strips along the contour lines), etc.) (Implementation phase) -Induce conservation and efficient use of water. (Planning and implementation phases) -Reduce misuse of agrochemicals, contributing to a reduction of toxic substances in soil and water. (Planning and implementation phases) -Reduce usage of pesticides and promote integrated pest management approaches recommended by DOA. (Planning and implementation phases) -Reduce, recycle and reuse the agricultura waste (natural, animal, plant waste) (Implementation phase)					
c, Sample ESMP for Delivery of *Materials/Inputs*						
Materials and inputs (both food and non-food) Safety	-Conduct due diligence during the procurement process and the vendor selection that the commodities to be received will be delivered in good condition and quality control is performed during intake. (Planning phase) -For storage, select storage facilities and locations based on surveying the relevant characteristics, considering factors such as quality of construction, state of repairs, road access, and sustainability. Regularly	FPCU, RPCU, Contractors Implementing partners				

	inspect these warehouse storage facilities for perimeter fencing, cleanliness, ventilation, lighting and fire prevention. (Implementation phase) -Assess the effects of moisture, humidity and temperature in material storage warehouses and for transportation, and take appropriate mitigation and management measures to ensure that material quality and safety are not impacted by these factors. -Regularly monitor warehouse storage facilities for temperature, moisture and humidity given the particular inventory of food items stored and regularly inspect warehouses for material quality. Similar minimum measures for material safety should be included in the contracts of transportation services providers and inspected regularly. (Implementation phase) -For pest management, for each warehouse, conduct a site-specific pest (insect and rodent) assessment, prepare a pest control plan, procure and utilize relevant insect and rodent control equipment, as well as procure and apply relevant pest management measures. -Regular food storage warehouse inspections should include inspection of the implementation of the pest control regime. (Implementation phase)					
Solid waste management	-Procure materials and inputs (food and non-food) commodities with an aim to					

	minimize packaging; minimize the potential for unmanaged waste; and minimize the type of packaging materials that may have adverse impacts on the environment, and on community health and safety, to the extent technically and financially feasible. (Planning phase) -During transportation, storage and distribution processes, collect all solid waste generated, establish a short term covered storage area on site, and store all solid waste, including food packaging, at these storage area sites. Upon completion of distribution in communities and with relevant frequency in storage warehouses, remove waste from the storage area sites and dispose of waste in relevant off-site facilities designated by local township authorities. (Implementation phase) -For possible solid waste generated after distribution (food packaging that will be discarded later), raise community awareness on where and how to dispose of such packaging, in designated covered storage areas in communities or in IDP camps. (Implementation and post-implementation phases)					
Social Risks and Impacts						
Land acquisition	-Where possible, avoid or minimize involuntary land acquisition during sub-project identification and implementation	FPCU, Contractors				

	-In cases where access restrictions and economic losses occur, adopt and implement procedures outlined in the RF of the LLRP II project. -Appropriate compensations have to be made to PAPs in accordance with the laws on compensations and the ESS5 requirements -In cases of minor land acquisition, avoid involuntary resettlements, when possible, to do so -If involuntary resettlements are unavoidable, the principles outlined in the RF of the project should be implemented. Based on the ESIA and site-specific, a specific resettlement action plan (RAP) should be prepared and implemented in accordance with ESS5, consistent with the RF	implementing partners				
Risk of social tensions/ conflicts over resources and access to services such as water points, irrigation facilities, roads, and livestock service facilities	-Transparent and inclusive consultations shall be conducted at all stages of the sub-project activity (from identification to operation), as per the SEP -Clan leaders, local administration and community associations shall be engaged throughout the process and fully informed of the sub-activity -Concerns and issues of differences shall be captured and analyzed through the SA and addressed through the SDP; shall be addressed through design alternatives -In case of such incidences, cases shall be observed through existing traditional GRM system, before cases are referred to the KGRC or WGRC	FPCU Contractors implementing partners				

Security and safety risks to project workers	-Contractors should provide security updates to project workers -Report incidences of security problems in timely manner -Secure project site with own security personnel (Guards) and protect workers -Provide awareness creation and training for project workers and security persons -Maintain information exchange on security updates with PUCs and report incidences of serious security threats -Strengthen cooperation with local administration in case of any support needed -Prepared an emergency plan and created awareness to workers on those plans	FPCU, Contractors implementing partners				
Risk of social exclusion and vulnerability of the disadvantaged and vulnerable groups	-Ensure transparent and inclusive consultations during project identification, risk analysis and consultation processes -Ensure project activity designs are considerate of vulnerable and disadvantaged groups -Ensure vulnerable and disadvantaged groups are well identified, informed and included in project benefits -Engage and reach out to communities in remote and conflict affected areas through different mechanisms	FPCU, Contractors implementing partners				
Gender-based violence, sexual exploitation	-Provide awareness training to all workers and community members on GBV/SEA/SH) -Educate workers and communities using posters, flyers in local languages about	FPCU, Contractors implementing partners				

and abuse, and sexual harassment (GBV/SEA/SH)	GBV/SEA/SH, during field days, public gatherings -Provide training to workers on GBV/SEA/SH -Prepare code of conduct for all project workers to read, understand and sign for taking responsibility in case of violations rules -Put in place a functioning GRM for workplace complaints at the project site -Address complaints in timely and appropriate manner using the GRM and legal channels					
Risk of labor influx to project areas	-Contractors should provide strict adherence to organizational code of conduct by contract workers -Contract workers and local communities should be provided with training on awareness raising on communicable diseases such as HIV/AIDS, STDs and others including COVID 19 -Cultural sensitization training should be given to workers on how to engage with local community; -Provide guidelines on local culture, behavior and social life to workers	FPCU, Contractors implementing partners				
Exclusion of disadvantaged and vulnerable groups	-During subproject activities identification and beneficiary selection, conduct inclusive and accessible consultations with community members, community leaders and representatives, and local authorities. -Provide transparent information on project activities, benefits, and eligibility criteria to communities, through accessible channels, relevant ethnic languages.	FPCU, Contractors implementing partners				

	-Proactively identify, consult with, and reach out to disadvantaged and vulnerable groups and households (through surveys, consultations, or other means, as appropriate). -For livelihood assistance activities, include specific measures to address the potential obstacles to access for disadvantaged and vulnerable groups. Ensure that the grievance/beneficiary feedback mechanism is accessible by disadvantaged and vulnerable groups					
Child labor involvement	-Clearly communicate the minimum age for community labor is 18 years; do not engage young labor as the intensive public works interferes with the child's education and health Comply with and ensure effective implementation of the LMP	FPCU, Contractors implementing partners				

5. Capacity Development & Training

Based on the implementation arrangements and responsible parties proposed above, this section outlines any capacity building, training or new staffing that may be necessary for effective implementation.

6. Implementation Schedule and Cost Estimates

This section states the implementation timeline for the mitigation measures and capacity development measures described above, as well as a cost estimate for the implementation. The cost estimate can focus on the line items that will be covered by the project implementing agency, with costs of mitigation measures to be implemented by the contractor left to the contractor to calculate.

7. Attachments

ESMPs site specific SEP etc.

IV. Review & Approval

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<tr><td colspan="2">Prepared By: ……(Signature)
Position: …… Date ……</td></tr>
<tr><td>Reviewed By: ……(Signature)
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Annex 4. Labor Management Procedures

In accordance with the requirements of World Bank's Environmental and Social Standard (ESS2) on Labor and Working Conditions, a LMP have been developed for the project. The LMP sets out the ways in which the Ministry of Irrigation and Lowlands (MILLs) will manage all project workers in relation to the associated risks and impacts. The objectives of the LMP are to: Identify the different types of project workers that are likely to be involved in the project; identify, analyze and evaluate the labor-related risks and impacts for project activities; provide procedures to meet the requirements of ESS 2 on Labor and Working Conditions, ESS 4 on Community Health and Safety, and applicable national legislation.

The Labor Management Procedures apply to all project workers, irrespective of contracts being full-time, part-time, temporary or casual. The types of workers that will be included in the project are listed below:

Direct workers – are employees of the MILLs/LLRP which include project coordinators, managers, sector specialists, safeguard specialists, technicians, Procurement and Finance officers and other supporting team members directly employed or engaged by the LLRP and project implementing agencies to specifically work for the LLRP. These include all workers who are already engaged in the project during the LLRP Phase I and currently working at the FPCU, RPCU, RCST and Woreda PCU. In the LLRP II, additional workers will be recruited for the new components (e.g., engineers, ICT experts, MIS experts, Marketing and Business experts and support workers) and for the new added region in the LLRP II. Other workers such as supervisors or specialized skilled workers who will be employed on permanent or temporary basis by the PCUs and sector offices at project implementation sites will also be direct workers.

Contract workers – are workers who will be employed by contractors and sub-contractors to implement sub-project activities and other workers employed through third parties (e.g., agents or intermediaries) to perform work related to core functions of the LLRP. Contract workers will be engaged in construction works under Component 1 of the project (roads, storage facilities, small scale irrigation dams, clinics, laboratories, etc..), and specialized consultants to provide trainings, advisory services and specialized support to project implementing experts, specialists and managers at any part of the project implementation sites at any stage of implementation under components 1, 2 and 3.

Community workers – these workers who will provide community labor. The sub-projects may include the use of community labor in different circumstances, including where labor is provided by the community as a contribution to the sub-project activity (for instance during village access road, or any other construction), or where sub-project activities are designed and conducted for the purpose of fostering community-driven development (CDD). Most of the LLRP II activities are done through CDD approach and there will be engagement of community workers. Community labor/workers may be provided from local cooperatives members, irrigation water user associations, grievance redress committee members, women user-group members, youth association members, school communities, social institutions (e.g., *Idir, equb*)

Primary supply workers – those workers who will supply inputs, materials or services to the LLRP II project, i.e., those suppliers who, on an ongoing basis, provide goods or materials or services directly to the LLRP II project that are essential for the core functions of sub-project activities. The suppliers will include suppliers of inputs such as seeds, seedlings, nursery materials including, equipment, field survey and inventory materials, camping equipment, planting materials, protective gears, medical equipment and drugs, etc… through procurement procedures who will be selected through a standard competitive bid process.

Labor Risks

The following potential labor risks are identified under the LLRP II project:

- Violation of worker's rights: Terms and conditions of employment of workers may not be consistent with national legislation or World Bank standards
- Violation of worker's rights: Non-discrimination and equal opportunity of workers may not be consistent with national legislation or World Bank standards
- Violation of workers' rights of organization
- Use of child labor or forced labor
- Unsafe work environment and poor working conditions
- Workplace injuries and accidents, particularly when operating construction equipment, when working at height on building construction, and when handling heavy equipment and materials
- Risks from exposure to hazardous substances (dust, cement, chemicals used in construction etc.)
- GBV, Sexual exploitation and abuse/sexual harassment (SEA/SH) risks for workers
- GBV, SEA/SH risks for community members, from workers from outside the project areas
- Absence of labor related grievance redress mechanisms to file concerns and right violations
- Risks of potential exposure to communicable diseases (e.g., Malaria, STDs, AIDs, TB, others) due to social gathering, travel to and from work, at field work sites, public transportation, due to accidents in medical facilities, etc…
- Exposure to external security treats (abductions, fatal encounters, ambushes, etc….)
- Risks of accidents during travel to and from work, field sites and while at work with machineries
- Conflicts between workers and communities
- Transmission of COVID-19 among workers or nearby communities, especially if workers are not hired locally and arrive to civil works locations from elsewhere or if COVID-19 specific precautions are not in place at work sites and worker accommodation sites

Relevant National Labor Legislation

The Ethiopian government has enacted laws and policies governing labor and associated rights in the past decades pursuant to the constitution; and in accordance/in conformity with the international conventions and other legal commitments to which Ethiopia is a party. The policies and laws emanated from the 1994 Federal Constitution, which contains full articles on fundamental rights and freedoms, including the right to equality without discrimination, the rights of women and children, the right to access to justice, and economic, social and cultural rights. Exclusively on labor, Article 42 describes "Rights of labor", including the rights of workers to form associations, improve conditions of employment and economic well-being, limitation of working hours, remuneration for public holidays and a healthy and safe working environment.

The relevant laws, proclamations and directives applicable to the implementation of the labor management procedure to address labor related risks in the LLRP II project are:

- Labor Proclamation No. 1156/2019
- Federal Civil Servants Proclamation 1064/2017
- Proclamation No. 568/2008, Right to Employment of Persons with Disability
- Occupational Safety and Health Directive, 2008 (Federal Ministry of Labor and Social Affairs)
- National Comprehensive COVID-19 Management Hand Book_2020 (MOH)
- National Comprehensive Guideline for HIV/AIDS prevention_2018

Worker-Employer relations are governed by basic principles of rights and obligations stipulated under the **Labor Proclamation No. 1156/2019**. "Worker" means a person who has an employment relationship with an employer in accordance with Article 4 of the Proclamation; and an "employer" is defined as a person or an undertaking that employs one or more natural persons in accordance with Article 4 of the

Proclamation. The Proclamation specifies "Work rules" which govern working hours, rest period, payment of wages and methods of measuring work done, maintenance of safety and prevention of accidents, disciplinary measures and their enforcement as well as other conditions of work. "Condition of work" are also elaborated as the full account of labor relations between workers and employers ***including hours of work, wage, leave, payments due to dismissal, workers health and safety, compensation to victims of employment injury, dismissal because of redundancy, grievance procedure*** and any other similar matters. Project workers of the LLRP II must have a binding contract agreement that encompasses the details of rights (hours of work, overtime payments, wages), benefits (compensation benefits, severance payments, allowances, etc…), obligations, responsibilities and accountabilities (violations of rules, causing damages property, etc…) of the employee and the employer. In compliance to the requirements in the ESS2, project workers need to be engaged with a legally binding contract agreement that clearly states the terms and conditions of employment as per the appropriate Civil Servant law and labor law. The conditions of the contract should clearly inform the employee about the rights and obligations in understandable language/ the language that the worker understands. The contract agreement should be signed at the beginning of the employment and whenever changes are made within the provisions, and the terms of employment changes.

Article 4 of the Proclamation No. 1156/2019 stipulates that a contract of employment shall be deemed formed where a natural person agrees directly or indirectly to perform work for and under the authority of an employer for a definite or indefinite period or piece of work in consideration for wage; a contract of employment shall be stipulated clearly and in such manner that the parties are left with no uncertainty as to their respective right and obligation under the terms thereof; a contract of employment shall specify the type of employment and place of work, the rate of wages, method of calculation thereof, manner and interval of payment and duration of the contract; a contract of employment shall not be concluded for the performance of unlawful or immoral acts; the contract of employment shall not laydown less favorable conditions forth employee than those provided for by law, collective agreement or work rules.
Wages: A worker is entitled to wages in return for the performance of the work that he performs under a contract of employment. Wage, as defined in the law, is a regular payment for the work performed under a contract. Payments such as over-time pay, allowances, per-diems, bonuses, commissions, service charges, etc… are not considered as part of wages.

Hours of working**:** ***Normal work hours*****-**each worker is required to work for the legally defined normal hours of work. A "**normal hours of work"** is the time during which a worker actually performs work or avails himself for work in accordance with law, collective agreement or work rules. According to the law, the Normal hours of ***work shall not exceed 8 hours a day or 48 hours a week***. ***Overtime work*** is considered a work that is done in excess of the normal daily hours work as defined in the law. A worker is entitled to an overtime payment in accordance with the law. Workers are not obliged to work on public holidays. Public holidays are those days observed under the relevant national law, and are paid Public Holidays.
Arrangement of Weekly Hours of Work*:* Hours of work shall spread equally over the working days of a week, provided, however, where the nature of the work so requires, hours of work in any one of the working days may be shortened and the difference be distributed over the remaining days of the week without extending the daily limits of eight hours by more than two hours.
Rest: A worker is entitled to a weekly rest period covering not less than twenty-four non-interrupted hours in the course of each period of seven days. The weekly rest period shall be calculated to include the period from 6 a.m. to the next 6 a.m. Where the nature of the work or the service performed by the employee is such that the weekly rest cannot fall on a Sunday another day maybe made a weekly rest day as a substitute.

Leaves: The labor proclamation grants different kinds of pertinent leaves to workers as part of the rights of a worker to rest. A worker is entitled to be granted with annual leave, special leave (family events, social events, etc…) and sick leave. ***Annual leave***: A worker entitled to uninterrupted annual leave with pay of Sixteen (16) working days for the first year of service; and Sixteen (16) working days plus one working day for every additional two year service. ***Special leave***: A worker is entitled to leave with pay for three consecutive working days for special events (marriage, death of relatives, paternity). ***Sick leave***: as per the provisions in section three and article 86 of the labor proclamation, a worker who has completed the probation period (a maximum of 60 working days after the first day of employment), and who is rendered incapable of working due to sickness other than employment injury, is entitled to a sick leave. The sick leave period shall not be more than six months counted consecutively or separately in the course of twelve months. The first month with payment of 100 % salary, the next two months with payment of 50 % salary and the next three months without pay. ***Maternity leave***: a pregnant worker shall be granted 30 consecutive days with pay of prenatal leave and a period of 90 consecutive days of post natal leave.

Contract Termination: The detailed descriptions of conditions for termination of a contract under the law are diverse. The general provision on Article 4 of the Labor proclamation state that a contract of employment shall terminate on the grounds of the completion of the work where the contract of employment is for a specified work; on the death of the worker; on the retirement of the worker in accordance with the relevant law; when the undertaking ceases operation permanently due to bankruptcy or for any other cause; when the worker is unable to work due to partial or total permanent in capacity.
Sexual harassment and sexual violence: The labor proclamation No. 1156/2019 on sexual harassment and sexual assault has several provisions. Under section three, article 14 and sub-article (h), sexual harassment or sexual assault by any worker or employer or employee manager is clearly listed as a legally prohibited act at work place. Further in sub-section two, on termination of contract by worker, under article 32 and sub-article (b), a worker who has been a victim of sexual harassment or sexual violence by an employer or employee manager can terminate his/her contract without any prior notice.
Affirmative action to the underserved: The Federal Civil Servants Proclamation No. 1064/2017, under section five, article 50 about conditions of work applicable to minority nations, nationalities and peoples state that the sub-article (1) placement of personnel in government institutions shall take into account fair representation of nations, nationalities and peoples, and under sub-article (2) it state that nations, nationalities and peoples having lesser representation in government institutions shall be given the advantage of affirmative action in recruitment, promotion, transfer, redeployment, education and training
Ethiopia has legal frameworks on OHS. The Constitution (1995) under Article 42/2 stated the Rights of Labor as "workers right for healthy and safe work environment" Proclamation No. 4/1995. There are also different legal frameworks on OHS which include: The National Occupational Health Policy and Strategy, Occupational Health and Safety Directive (2008), Occupational Health and Safety Policy and Procedures Manual, and On Work Occupational Health and Safety Control Manual for Inspectors (2017/18) which will apply to the project. OHS promotion is also included as a priority in the National Health Policy Statement (1993). Ministry of Labor and Skill development (MoLS) and its regional counterparts are responsible for OHS at Federal and Regional levels. MoLS has OHS & Working Environment Department responsible for OHS responsibilities. Each administrative region has an OHS department within the Labor and Skill development Bureau with the responsibilities of inspection service.
As stated in Article 52 of the Proclamation No, 1064/2017, the OSH is applicable to civil servants including temporary/community workers. The objective of the OSH is to maintain the safety and health of civil servants and to enhance their productivity; to arrange, improve and keep suitable work place for the safety and health of civil servants; to guarantee high level of performance of a government institution on social wellbeing; in subsequent articles from 53-59, definitions of **Accident and injury, list of the types of**

accidents, necessary safety measures, worker's rights in cases of accidents that result in different levels of disability (partial, temporary, permanent, etc…), benefits and leaves, claims of compensation from third party, and other benefits to the employee are provided in details and in cases of accidents, this law is applicable. The health and safety of workers while at work are protected with provisions from the **Labor proclamation No. 1156/2019**. It provides the measures to be taken to prevent occupational accidents and injuries.

General Applicable Procedures

The Ministry of Irrigation and Lowlands (MILLs/FPCU), and contractors will apply the following guidelines when dealing with workers:

- There will be no discrimination with respect to any aspects of the employment relationship, such as: Recruitment and hiring; compensation (including wages and benefits; working conditions and terms of employment; access to training; job assignment; promotion; termination of employment or retirement; or disciplinary practices with the premise of ethnic origin, sex, political view, religion, health condition, disability or any other grounds
- Harassment, intimidation and/or exploitation will be prevented or addressed appropriately.
- Special measures of protection and assistance to remedy discrimination or selection for a particular job will not be deemed as discrimination.
- Vulnerable project workers will be provided with special protection.
- The MILLs/FPCU, and contractors will provide job / employment contracts with clear terms and conditions including rights related to hours of work, wages, overtime, compensation and benefits, annual holiday and sick leave, maternity leave and family leave. Code of Conduct included in this LMP will be applicable for all project workers.
- The MILLs/FPCU will ensure compliance with the Code of Conduct including providing briefings/awareness raising on the Code.
- The MILLs/FPCU and contractors will ensure compliance with occupational health and safety procedures and COVID-19 specific procedures (see below) including that the workers are properly trained in application of the standards that are relevant to the work.
- The MILLs/FPCU and retained contractors will ensure no person under the age of 18 shall be employed. Age verification of all workers will be conducted by the contractors.
- The MILLs/FPCU will recruit contractors and labor locally to the extent that they are available.
- No person under the age of 15 shall be engaged in any job contract by the project
- Workers shall be recruited voluntarily, and no worker is forced or coerced into work.
- The MILLs/FPCU will supervise and monitor to ensure compliance with the above requirements.
- The MILLs/FPCU will ensure equal pay for equal work' regardless of any other ground than the professional requirements.
- All workers will be made aware of the Worker's Grievance Mechanism (see below) to raise work related grievances, including any sensitive and serious grievances on SEA/SH.

Occupational Health and Safety (OHS) Procedures

The health and safety of workers while at work are protected with provisions from the **Labor proclamation No. 1156/2019**. It provides the measures to be taken to prevent occupational accidents and injuries. The objective of the procedure is to achieve and maintain a healthy and safe work environment for all project workers (direct workers, contracted workers and community workers) and the host community. The MILLs/FPCU has the obligation to:

- Comply with the occupational health and safety requirements provided for in this Proclamation.

- Take appropriate steps to ensure that workers are properly instructed and notified concerning the hazards of their respective occupations; and assign safety officer; and establish an occupational health and safety committee.
- Provide workers with protective equipment, clothing and other materials and instruct them of their use.
- Register employment accidents and occupational diseases and report same to the labor inspection service.
- Arrange, according to the nature of the work, at his own expense for the medical examination of newly employed workers and for those workers engaged in hazardous work, as may be necessary with the exception of HIV/AIDS Unless and otherwise the country has obligation of international treaty to do so.
- Ensure that the work place and premises of the undertaking do not pose threats to the health and safety of workers.
- Take appropriate precautions to ensure that all the processes of work in the undertaking shall not be a source or cause of physical, chemical, biological, ergonomic and psychological hazards to the health and safety of the workers.
- Implement the instructions given by the Competent Authority in accordance with this Proclamation;
- On procurement for contractors, the MILLs will avail the ESMF to the aspiring contractors so that contractors include the budgetary requirements for OHS measures in their respective bids.
- The contractor will develop and maintain an OHS management system that is consistent with the scope of work, which must include measures and procedures to address all the following topics listed below and in accordance with local legislation and GIIP (as defined by World Bank Group EHSGs). The management system must be consistent with the duration of contract and this LMP.
- Contractor will conduct workplace hazards identification and adopt all applicable E&S risk mitigation measures in accordance with local legislation requirements and WBG EHSGs.
- Contractor designates a responsible person to oversee OHS related issues at the project site and define OHS roles and responsibilities for task leaders and contract managers.
- Contractor should put in place processes for workers to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health, without fear of retaliation.
- Contractor provides preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances informed by assessment and plan. Whenever PPEs are required for the work, it must be provided at no cost for the workers.
- Contractor should assess workers' exposure to hazardous agents (noise, vibration, heat, cold, vapors, chemicals, airborne contaminants etc.) and adopt adequate control measures in accordance with local regulations and WB EHSGs.
- Contractors provides facilities appropriate to the circumstances of the work, including access to canteens, hygiene facilities, and appropriate areas for rest. Where accommodation services are provided to project workers, policies will be put in place and implemented on the management and quality of accommodation to protect and promote the health, safety, and well-being of the project workers, and to provide access to or provision of services that accommodate their physical, social and cultural needs.
- Contractor provides for appropriate training/induction of project workers and maintenance of training records on OHS subjects.

- Contractor documents and reports on occupational incidents, diseases and incidents as per ESMF guidance.
- Contractor provides emergency prevention and preparedness and response arrangements to emergency situations including and not limited to workplace accidents, workplace illnesses, flooding, fire outbreak, disease outbreak, labor unrest and security.
- Contractor provides remedies for adverse impacts such as occupational injuries, deaths, disability and disease in accordance with local regulatory requirements and Good International Industry Practices.
- Contractor shall maintain all such record for activities related to the safety health and environmental management for inspection by [implementing agency] or the World Bank.

COVID-19 Procedures

The Ministry of Health (MoH) has published a national guideline "National Comprehensive COVID-19 Management Handbook" in April 2020 for health care professionals, decision makers and the larger public to prevent the spread of COVID-19. The Hand book has various protocols and procedures for prevention practices. The guideline is implemented at national level and the prevention protocols for the larger public are provided in section IV of the guideline. The Infection Prevention and Control (IPC) protocols are based on WHO infection prevention and control during health care SARS CoV-2 infection interim guidance, Ethiopian National Infection Prevention and Control Guideline, WHO guideline on hand hygiene in health care. The protocol demands:

- Cough hygiene should be implemented by the general public including covering mouth during coughing and sneezing with tissue or flexed elbow.
- All personnel should wear surgical masks.
- Do not shake hands, and if you do Apply ABHR (Alcohol-Based Hand Rub) or wash hands thoroughly with soap and water
- Avoid contact with a patient who is suspected or conformed for COVID-19
- Limit movement to essential purpose only
- Ensure adequate ventilation at homes
- Avoid thirst of throat, maintain rehydration
- Contractors should ensure that workers are hired locally to the extent possible.
- Contractors should provide training to all workers on signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular hand washing and social distancing) and what to do if they or other people have symptoms, as well as policies and procedures listed here. Training of workers should be conducted regularly, providing workers with a clear understanding of how they are expected to behave and carry out their work duties. Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work following infection.
- A summary of basic guidelines and COVID-19 symptoms should be displayed at all civil works sites, with images and text in relevant ethnic languages.
- Workers who are sick or showing possible symptoms should not be allowed on work site, should be isolated and referred to local medical facilities immediately.
- Contractors should review worker accommodation arrangements to see if they are adequate and designed to reduce contact with the community.
- Contractors should review work arrangements, tasks and hours to allow social distancing.
- Contractors should provide workers with appropriate forms of personal protective equipment.
- Contractors should ensure hand washing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places at the work site.

- The MILLs/FPCU and contractors should together implement a communication strategy with the community in relation to COVID-19 issues on the site.

Contractor Management Procedures

The objective of this procedure is to ensure that the MILLs/FPCU has contractual power to administer oversight and action against contractors for non-compliance with the LMP.

- The MILLs/FPCU will make available relevant documentation to inform the contractor about requirements for effective implementation of the LMP.
- The MILLs/FPCU will include the provisions of the ESMF, LMP and other relevant documents into the specification section of the bidding documents. The contractors will be required to comply with these specifications.
- Contractor will raise worker awareness on the Code and Conduct.
- Contractor will show evidence of OHS and Emergency Preparedness procedures.
- The MILLs will monitor contract's E&S performance during its regular site visits utilizing contactor reporting or external monitoring/supervision consultants where available. Where appropriate, MILLs may withhold contractor's payment or apply other contractual remedies as appropriate until corrective action(s) is/are implemented on significant non-compliance with the LMP, such as failure to notify MILLs/FPCU of incidents and accidents.

Procedures for Primary Suppliers

The objective of the procedure is to ensure that labor-related risks, especially child and forced labor as well as serious safety issues to the project from primary supply workers are managed. The MILLs/FPCU and all contractors will undertake the following measures:

- Procure supplies from legally constituted suppliers.
- To the extent feasible, conduct due diligence to ensure that primary suppliers conduct age verifications, employ workers without any force or coercion, and maintain basic OHS systems.

Procedures for Community Workers

Community workers include people who will provide community labor voluntarily. The sub-projects may include the use of community labor in different circumstances, including where labor is provided by the community as a contribution to the sub-project activity. The objective of this procedure is to ensure the community workers offer their labor voluntarily and that they agree to the terms and conditions of employment. The MILLs/FPCU and contractors using community workers will apply the following guidelines when dealing with community workers:

- The MILLs/FPCU will develop standard working times, remuneration systems (depending on the type of work), methods of payment, timing of payment, and community worker Code of Conduct, which will apply to all project activities.
- The MILLs/FPCU and contractors should consult communities and document their community meetings where members agree to conditions of community worker recruitment. The agreement should include details on nature of work, working times, age restrictions (18 and above), remuneration amount, method of payment, timing of payment, individual signatory or representative signatory of meeting resolution
- Contractors will have the terms and conditions discussed, explained, negotiated and documented through joint community meetings, with each community employee showing consent through signing the attendance register of the meeting which made the employment resolutions.
- The MILLs/FPCU and contractors train community workers on key LMP issues, including GBV, SEA/SH, OHS, COVID-19, safe use of equipment and lifting techniques, and the relevant grievance mechanisms.

Worker Accommodation

If accommodations are provided for workers, contractors will ensure that they are provided in good hygiene standards, with fresh drinking water, clean beds, restrooms and showers, clean bedrooms, good illumination, lockers, proper ventilation, safe electrical installation, fire and lightening protection, separate cooking and eating areas. There will be separate facilities provided for men and women. The contractors will be liable to comply with "Workers' Accommodation: Processes and Standards: A guidance Note" by IFC and the EBRD.

Institutional Arrangement for Implementation of the LMP

The MILLs/FPCU will carry the main responsibility for the implementation and monitoring of the LMP. The FPCU of LLRPII will identify subproject activities, prepare subproject designs and bidding documents, as well as procure contractors. The MILLs/FPCU will be responsible for contractor and site supervision, technical quality assurance, certification, and payment of works. The FPCU will ensure that labor management procedures are integrated into the specification section of the bidding documents and the procurement contracts.

Grievance Mechanism

There will be a specific Workers Grievance Mechanism (Worker GM) for project workers as per the process outlined below. This considers culturally appropriate ways of handling the concerns of direct and contracted workers. Processes for documenting complaints and concerns have been specified, including time commitments to resolve issues. Workers will be informed about the relevant Worker GM upon their recruitment and their right to redress, confidentiality and protection against any reprisals from the employer will be stated in the contract.

Routine Grievances

The process for the Worker GM is as follows:

- Any worker may report their grievance in person, by phone, text message, mail or email (including anonymously if required) to the contractor as the initial focal point for information and raising grievances. For complaints that were satisfactorily resolved by the aggrieved worker or contractor within one week of receipt of complaint, the incident and resultant resolution will be logged and reported monthly to the FPCU of LLRPII.
- If the grievance is not resolved within one week, the contractor (or the complainant directly) will refer the issue to the MILLs/FPCU – this may be site level, local, regional]. The MILLs/FPCU will work to address and resolve the complaint and inform the worker as promptly as possible, in particular if the complaint is related to something urgent that may cause harm or exposure to the person, such as lack of PPE needed to prevent COVID-19 transmission. For non-urgent complaints, the [MILLs/FPCU will aim to resolve complaints within 2 weeks. For complaints that were satisfactorily resolved by the MILLs/FPCU, the incident and resultant resolution will be logged by R-GRCs and reported monthly to F-GRC as part of regular reporting. Where the complaint has not been resolved, the RPCU will refer MILLs/FPCU for further action or resolution. The workers will preserve all rights to refer matters to relevant judicial proceedings as provided under national labor law.

At MILLs/FPCU level, each grievance record should be allocated a unique number reflecting year, sequence and township of received complaint. Complaint records (letter, email, record of conversation) should be stored together, electronically or in hard copy. The MILLs/FPCU will appoint a Worker GM Focal Person, who will be responsible for undertaking a monthly review of all grievances to analyze and respond

to any common issues arising. The Focal Person will also be responsible for oversight, monitoring and reporting on the Worker GM.

Serious Grievances

In case a worker experiences serious mistreatment such as harassment, intimidation, abuse, violence, discrimination or injustice at the workplace, the worker may raise the case, verbally or in writing directly to the contractor the PCU at different levels. The contractor will immediately refer the case to RPCU. The MILLs/FPCU will immediately investigate the case respecting confidentiality and anonymity of the worker. Upon project effectiveness, the MILLs/FPCU will designate a Focal Person or Persons for Serious Grievances. These Focal Persons will receive training in investigating serious grievances, relevant laws and regulations, and World Bank standards including the rights of people who file a grievance. MILLs/FPCU and the World Bank will jointly develop culturally-sensitive and locally-appropriate roles and responsibilities, and procedures. In case a direct worker or civil servant has a serious grievance, the staff may directly contact verbally or in writing the Focal Person for Serious Grievances. All complaints received will be filed and kept confidential. For statistical purposes, cases will be anonymized and bundled to avoid identification of persons involved.

Code of Conduct

- Treat women, children (persons under the age of 18), and men with respect regardless of ethnicity, language, religion, political or other opinion, national, social origin, citizenship status, property, disability, birth or other status.
- Do not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Do not participate in sexual activity with community members.
- Do not engage in sexual favors or other forms of humiliating, degrading or exploitative behavior.
- Do not engage in any activity that will constitute payment for sex with members of the communities surrounding the workplace.
- Report through the Worker GM suspected or actual gender-based violence against a person of any gender by a fellow worker or any breaches of this Code of Conduct.
- Use any computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass women, children or a vulnerable person through these mediums.
- Comply with all relevant local legislation.
- Engaging in any of the prohibited activities above can be cause for termination of employment, criminal liability, and/or other sanctions.

Annex 5. Chance Find Procedures

While implementing the sub-project activities of LLRP II under components 1, 2, and 3, there is potentially a possibility to encounter structures, archeological features, sacred artefacts, etc… that are of cultural heritage, historical monuments, religious and national significance. Cultural heritage encompasses tangible and intangible heritage, which may be recognized and valued at a local, regional, national or global level. *Tangible cultural heritage*, which includes movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Tangible cultural heritage may be located in urban or rural settings, and may be above or below land or under the water. *Intangible cultural heritage*, which includes practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith— that communities and groups recognize as part of their cultural heritage, as transmitted from generation to generation and constantly recreated by them in response to their environment, their interaction with nature and their history.

In the event that during construction of access roads, irrigation canals, social service centers, storage facilities, quarry excavations, sites, resources or artifacts of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents. These procedures take into account requirements related to Chance Finding under national legislation including Proclamation No. 209/2000 on research and conservation of cultural heritage.

- Halt the construction activities in the area of chance find temporarily.
- Delineate and secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a guard shall be arranged until the responsible local authorities take over. These authorities are the Woreda Culture and Sports office and the Woreda Peace and Security.
- Notify the relevant MILLs/Woreda PCU field staff and the Woreda Culture and Sport office immediately. The MILLs/Woreda PCU field staff will inform the MILLs/FPCU management.
- The relevant Woreda culture and sport office shall promptly carry out the necessities and inform the Ministry of Culture and Sports immediately from the date on which the information is received.
- The Ministry of Culture and Sports would be in charge of evaluation /inspection of the significance or importance of the chance finds and advise on appropriate subsequent procedures.
- If the Ministry of Culture and Sports determines that chance find is a non-cultural heritage chance find, the construction process can resume.
- If the Ministry of Culture and Sports determines chance find is an isolated chance find, [Ministry of Culture and Sports would provide technical supports/advice on chance find treatment with related expenditure on the treatment provided by the entity report the chance find.
- Relevant findings will be recorded in World Bank Implementation Supervision Reports (ISRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

Annex 6. Fertilizer and Pest Management Plan Guideline

The MILLs/FPCU will follow the guidelines in this Annex as applicable and provide training to agro-pastoralist farmers who will be involved in irrigation farming, crop production and pasture production using irrigation water for proper use of fertilizers, pest, and disease management in line with this Annex. The MILLs/FPCU will encourage the use of bio-pesticides and aim to minimize the use of chemical pesticides when possible. During the screening process of LLRP II sub-project, the pesticide list is in compliance with EHSGs and GIIP requirements need to be verified, and feasible alternatives instead of using of pesticides. If there is significant pesticide application, site-specific IPMPs will be developed at subproject. Consider requirements shall not be utilized pesticides that are phased out/banned/restricted at national level as well as under applicable international conventions and GIIP. Furthermore, all ESS3 requirements for Integrated Pest Management Plans require to be implemented. The plan comprises the following three aspects: (i) application of government regulations on pesticide control, (ii) key impacts of pesticides and mitigation measures, and (iii) training on safe use of chemicals.

Government Regulations related to Pesticides. Proclamation No. 647/2010 states that the MoA is mandated for registration and approval of pesticide, and no pesticide shall be registered unless the efficacy, safety and quality is tested under field or laboratory conditions and no person may formulate, manufacture, import, pack, re-pack, label, sell, distribute, store or use a pesticide not registered by the Ministry. Pesticides that are not well certified, clearly labeled with safety measures, and that are known to cause harm to human health, non-targeted species and the environment are not permitted for import.

Key Impacts of Pesticides and Mitigation Measures. Pesticides benefit the pastoralist farmers for the crop production, nevertheless, they also impose a series of negative impacts on the environment. Pesticides may easily contaminate the air, ground water, surface water, and soil when they run off from fields, escape storage tanks, and not discarded properly.

Moreover, pesticides are hazardous to both pests and humans and they become toxic to humans and non-target species if suitable precautions are not undertaken during transport, storage, handling and disposal. Most pesticides will cause adverse effects if they are in contact with the skin for a long time or if intentionally or accidently ingested. Pesticides may be inhaled with the air while they are being sprayed. An additional risk is the contamination of drinking-water, food or soil.

The following mitigation measures are recommended from different aspects at every stage in order to avoid the adverse impacts on both human and the environment due to pesticides.

Stage	Mitigation Measures[6]
Before using pesticides	1. Minimize the need for pesticides by practicing integrated management by control strategies such as cultural control, mechanical control, physical control, biological control and chemical control. 2. Receive recommendations from the MoA for proper management method for specific crop.
General precautions	1. Only choose the pesticides labelled in the national language and do not use the pesticides without any label or with foreign language labels.

[6] Instructions from Safe Use of Pesticides by WHO.

Stage	Mitigation Measures[6]
	2. Select the pesticide which is suitable for specific pests and target plants as described on the label. 3. Do not mix any two or more pesticides at the same time. 4. Follow the instructions for use and the pre-harvest interval (PHI) as prescribed on the label. 5. Use appropriate and correct application techniques to ensure safety for the health of humans, animals and the environment.
Label Reading	1. Check the pesticide registration number on your product. 2. Review the date of manufacture and date of expiry. 3. Read the active ingredient and pesticide group on your product. 4. Read the target pests, dosage of product. 5. Read the pre-harvest interval (PHI). 6. Read the storage and disposal procedure for the product. 7. Read the first aid procedure. 8.Follow the instructions and safety precautions precisely written on the label.
Storage and Transport	1. Store pesticides in a certain place that can be locked and not accessible to unauthorized people or children. 2. Never be kept in a place where they might be mistaken for food or drink. 3. Keep them dry but away from fires and out of direct sunlight. 4. Store away from water sources. 5. Should be transported in well-sealed and labelled containers. 6. Do not carry them in a vehicle that is also used to transport food.
Handling / Application	**From Environmental Safety Aspect –** 1. Application rates must not exceed the manufacturer's recommendations. 2. Avoid application of pesticides in wet and windy conditions. 3. Pesticides must not be directly applied to streams, ponds, lakes, or other surface bodies. 4. Maintain a buffer zone (area where pesticides will not be applied) around water bodies, residential areas, livestock housing areas and food storage areas. **From Health and Safety of User Aspect –** 1. Use suitable equipment for measuring out, mixing and transferring pesticides. 2. Do not stir liquids or scoop pesticides with bare hands. 3. Do not spray pesticides at the down-stream direction and during the strong wind. 4. Do not spray pesticides at the high temperature of the day (noon). 5. Do not suck or blow the blocked nozzle. 6. Do not assign pregnant women, lactating mother and children under 18 for handling and use of pesticides. 7. Protective gloves, shoes, long-sleeved shirt and full trousers shall always be worn when mixing or applying pesticides. 8. Respiratory devices (nose mask) shall be used to avoid accidental inhaling. 9. In case if any exposure/body contact with the pesticide, wash-off and seek medical aid.
Disposal	**From Environmental Safety Aspect –**

Stage	Mitigation Measures[6]
	1. Properly disposal of any left-over pesticide, obsolete pesticide, and pesticide container as should be implemented in accordance with the ESF requirements and other international good practice like FAO. 2. It should not be disposed of where it may enter water used for dinking or washing, fish ponds, creeks or rivers. 3. Do not dispose any empty containers into river, creek, fish ponds and water way. 4. Do not burn any empty containers. 5. Decontaminate the pesticide containers by triple rinsing and use for next application. i.e. part-filling the empty container with water three times and emptying into a bucket or sprayer for next application. 6. All empty package and containers should be returned to the designated organization / individual for safe disposal. 7. If safe disposal is not available, bury the empty package and containers at least 50cm (20 inches) from ground level as much as possible. 8. The hole / disposal site must be at least 100 meters away from the streams, wells and houses. 9. Do not reuse empty pesticide containers for any purposes.
Personal Hygiene	1. Never eat, drink or smoke while handling pesticides. 2. Change clothes immediately after spraying pesticides. 3. Wash hands, face, body and clothes with plenty of water using soap after pesticides handling.
Emergency Measures	**Indications of Pesticide Poisoning** **General:** extreme weakness and fatigue. **Skin:** irritation, burning sensation, excessive sweating, staining. **Eyes:** itching, burning sensation, watering, difficult or blurred vision, narrowed or widened pupils. **Digestive system:** burning sensation in mouth and throat, excessive salivation, nausea, vomiting, abdominal pain, diarrhoea. **Nervous system:** headaches, dizziness, confusion, restlessness, muscle twitching, staggering gait, slurred speech, fits, unconsciousness. **Respiratory system:** cough, chest pain and tightness, difficulty with breathing, wheezing. **Responsiveness** **General:** If pesticide poisoning is suspected, first aid must be given immediately and medical advice and help must be sought at the earliest opportunity. If possible, the patient should be taken to the nearest medical facility. **First Aid Treatment** **If breathing has stopped:** Give artificial respiration (i.e. mouth to mouth resuscitation if no pesticide has been swallowed.) **If there is pesticide on the skin:** Remove contaminated clothing from the patient and remove the patient from the contaminated area. Wash the body completely for at least 10 minutes, using soap if possible. If no water is available, wipe the

Stage	Mitigation Measures[6]
	skin gently with cloths or paper to soak up the pesticide. Avoid harsh rubbing or scrubbing. **If there is pesticide in the eyes:** Rinse the eyes with large quantities of clean water for at least five minutes. **If there is ingestion:** Rinse mouth, give water to drink. Never induce vomiting in unconscious or confused persons, seek medical advice immediately.

Trainings. Trainings on pesticide management should be provided to the farmers under relevant component of the project. The following trainings on pesticide management are recommended to be provided:

- *Training on Policy, Laws and Regulations Regarding to Pesticides Use:* To provide basic knowledge about the national laws, rules and regulations.
- *Trainings for Pest Management:* To provide trainings to clearly understand the technical aspect of pesticide and skill in using them such as what are the eligible and prohibited items of pesticide under national regulations, the level of negative impact of each eligible item, how to use them, how to protect and minimize the negative impact on the environment and human while using them, how to keep them before and after used etc.
- *Storage, handling, usage and disposal of pesticide*; To provide trainings about the procedures of storage, handling, usage of pesticide and disposal of pesticides residues or empty containers without affecting the health and safety of user, nearby community and the environment.

Annex 7: Indicative Content of a Biodiversity Management Plan (BMP)

(a) Objectives, based on the findings of the biodiversity baseline and recommendations of the environmental and social assessment or similar document(s). These might include, for example, No Net Loss or Net Gain.

(b) Activities to be carried out, along with any specific project requirements needed to achieve the intended BMP objectives. BMP activities may include, for example, new or expanded protected areas; site-specific habitat restoration, enhancement, or improved management; community benefit-sharing; livelihood restoration activities (to mitigate any negative socioeconomic impacts from newly restricted access to natural resources, in accordance with ESS5); species specific management interventions; monitoring of project implementation or biodiversity outcomes; or support for increased financial sustainability of conservation actions.

(c) Project Requirements that the implementing entities follow to achieve BMP objectives, such as biodiversity-related prohibitions or specific restrictions for civil works contractors and project workers. These may cover, for example, the clearing or burning of natural vegetation; off-road driving; hunting and fishing; wildlife capture and plant collection; purchase of bushmeat or other wildlife products; free-roaming pets (which can harm or conflict with wildlife); and/or firearms possession. Seasonal or time-of-day restrictions may also be needed to minimize adverse biodiversity impacts during construction or operation. Examples include (i) limiting blasting or other noisy activities to the hours of the day when wildlife are least active; (ii) timing of construction to prevent disturbance during the nesting season for birds of conservation interest; (iii) timing of reservoir flushing to avoid harming key fish-breeding activities; or (iv) curtailment of wind turbine operation during peak bird migration periods.

(d) An Implementation Schedule for the key BMP activities, taking into account the planned timing of construction and other project activities.

(e) Institutional Responsibilities for BMP implementation

(f) cost estimates for BMP implementation, including up-front investment costs and long-term and long-term recurrent costs. The BMP also specifies the funding sources for plan implementation as well as recurrent operating costs.

Annex 8: Report Format

The MILLs, FPCU will prepare and submit to the WB regular monitoring reports on the environmental, social, health and safety (ESHS) performance of the Project, including but not limited to the implementation of the ESCP, status of preparation and implementation of E&S documents required under the ESCP, stakeholder engagement activities, functioning of the grievance mechanism(s). The FPCU will provide a quarterly progress report throughout project implementation every 20 days after the end of each quarter. Contractor will provide its quarterly progress report to the FPCU five days after the end of each quarter. Contractor's report will be incorporated into the general quarterly progress report.

Summary of Key E&S Aspects during the Reporting Period
Project Status, E&S Incidents, E&S Changes, E&S Initiatives
Project Status
- Provide a brief description of any new developments in relation to operations and facilities over the reporting period.

E&S Incidents
- Please provide a summary of all the notifiable E&S incidents.

Please expand or collapse the table where needed.

Date	Incident description	Class	Reports sent to lenders	Corrective action / remedial plan	Status of Corrective Action

E&S Changes
- Please provide a summary of all the notifiable E&S changes.
- Please expand or collapse the table where needed.

Date	Change description	Reports sent to lenders	Implementation status

Improvements/initiatives regarding E&S performance
- Briefly describe improvements/initiatives implemented during the reporting period on the management of E&S aspects (e.g. energy/water savings, sustainability reports, waste minimization, etc.)

ESS1: Assessment and Management of Environmental and Social Risks and Impacts
E&S Impact / Risk Assessment
- Have any supplemental environmental, social, health and safety impact/risk studies been conducted during the reporting period? (Please provide copies)

E&S Regulatory Reporting, Permits and Supervision
- Please list any environmental reports submitted to the South Sudan authorities.

☐ Copies attached with this report ☐ Copies available upon request
- Please summarize Federal/regional environmental protection authority monitoring and inspections.

Management of FPCU

- Please illustrate with a chart or table on organizational structure to manage environment, health and safety, labor and social aspects during the reporting period. Please name the individuals in contractor/subcontractor who hold responsibility for environmental, social, health and safety, human resources, security performance and give their contact information.

Compliance with Environmental and Social Management Plans

- The status of the ESMP implementation should be described and any issues that remain outstanding should be detailed.

ESS2. Labor and Working Conditions

Human Resources Management

- Have contractors changed/updated their Human Resource (HR) policy and procedures, HR manual, and Health & Safety (H&S) procedures, during the reporting period?

☐ Yes ☐ No

If yes, please provide details.

- Provide the following information regarding the workforce:

	No. of workers	No. of direct workers	No. of female direct workers	Turnover	No of contracted workers
Previous year					
Reporting year					

- List the worker-related court cases and describe their status.

Occupational Health and Safety

- Describe the main changes implemented in terms of Occupational Health and Safety (OHS) during the reporting period, e.g. revision of the OHS management procedures, action plans for technical improvements, leading/lagging indicators used/introduced, identification of hazards, new controls, etc.
- Please attach Health & Safety audit reports available for the reporting period.

☐ Copies attached with this report ☐ Copies available upon request ☐ Not Available

Accident Statistics Monitoring

Report TOTAL numbers for each parameter	This reporting period			Last reporting period (not cumulative)		
	Community workers	Direct workers	Contracted workers	Community workers	Direct workers	Contracted workers
Total number of workers						
Total manhours worked annual						
Total number of lost time occupational injuries						
Total number of Lost workdays due to injuries						
Lost time injury						

frequency						
Fatalities						
Vehicle collisions						

- Provide details for the non-fatal lost time injuries during this reporting period.

Contractor/ sub-contractor employees	Total Workday lost	Description of injury	Cause of accident	Corrective measures to prevent recurrence

- Provide details for fatal accidents during this reporting period, if any, (and provide copies of accident investigation and respective corrective plan).

Date of accident	Type of accident	Description of accident	Number of fatalities	Preventive measures taken after the incident

OHS Training

- Describe Health and Safety training programs carried out in the reporting period.

Date	Type of audience	Description of training and duration	Number of attendees

Workplace Monitoring

- Please provide copy of any Workplace Monitoring reports developed for the reporting period.

ESS3. Resource Efficiency and Pollution Prevention

Environmental Monitoring

- Provide copy of environmental monitoring data reports for this reporting period, collected consistent with the ESMPs for the subprojects.
- Briefly describe environmental mitigation measures implemented during the reporting period to comply with E&S requirements.

Resources Efficiency: Energy and Water

- Provide data on energy and water consumption during the reporting period. If the data requested are available in another format, they can be submitted instead.
- Describe the concessionaires' resources efficiency measures/efforts being implemented to minimize fuel, energy and water consumption.

Hazardous (e-waste, pesticides, asbestos) and non-Hazardous Waste

- Erosion Control, Slope Stability and Reinstatement.

- Please describe status and actions implemented in terms of erosion control, slope stability, and reinstatement within the project's footprint and area of influence. Furthermore, waste types, include but are not limited to: chemical containers, chemical sludge, containers/pallets, dewatered sludge, domestic waste, e-waste (panel, battery), animal clinic waste, liquids, paint waste, sludge, solids, truck and auto tires, waste fuel hydrocarbons, waste hydraulic fluids, waste lubricating hydrocarbons, waste solvents, waste treatment sludge, contaminated soil, creosote sleepers, etc.

ESS4 Community Health, Safety and Security

Community Health and Safety

- Please list and describe any initiatives implemented in relation to community health and safety during the reporting period.
- Please provide the list and description of the actions, the expected or actual dates of implementation, progress/status, results obtained. You can use a tabular format (as below) or provide the information as an attachment of the report.

Issues	Mitigation measures	Expected and actual date of implementation	Results/current status

- During the reporting period, have any emergency drills been conducted with participation of the local authorities, public emergency organizations or local communities? Are the communities aware of the emergency response plans? - During the reporting period, have any emergency drills been conducted with participation of the local authorities, public emergency organizations or local communities?
Are the communities aware of the emergency response plans?

Accident Reporting

- Provide details for the non-fatal casualties, involving third parties, during this reporting period.

Contractor/ sub-contractor employees	Total Workday lost	Description of injury	Cause of accident	Corrective measures to prevent recurrence

- Provide details for fatal accidents during this reporting period, if any, (and provide copies of accident investigation and respective corrective plan).

Date of accident	Type of accident	Description of accident	Number of fatalities	Preventive measures taken after the incident

GBV/SEA and Child Protection Action Plan

- Please provide an update on the status and progress of the actions as defined in the GBV/SEA Action Plan.

You may attach relevant monitoring reports.

ESS5 Land Acquisition and Involuntary Resettlement
- Report any activities guided by the Resettlement Policy Framework (RPF)
- Have any specific instruments in regard to land and resettlement been prepared in the reporting period

Report on the implementation of specific land-related instruments (e.g. RAPs)
- Report any activities that are using voluntary land donations and assess compliance with the protocol
- **Provide summary of voluntary land donations**

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources
Biodiversity Management
- Please report on the mitigation measures included in the ESMF and ESMPs
- As needed, using the table below describe any **new activities or expansions** that have increased the project footprint into new **areas of habitat** during the reporting period.

New activities/ expansion	Total area covered	Habitat type

ESS7 IP/SAHUTLUC
- List any information dissemination and consultation events vis-à-vis land donors that have been undertaken to fulfil free, prior and informed consent (FPIC) in land donations.
- List any cultural issues identified in subprojects, corrective actions, and lessons learned for future projects.

ESS8 Cultural Heritage
- Report if chance find procedures have been applied if not, please indicate Not Relevant.

ESS 10 Stakeholder Engagement and Information Disclosure
Stakeholder Engagement, Public Consultation and Disclosure
- List any stakeholder engagement events, including public hearing, consultation and disclosure, liaison with non-governmental organizations, civil society, local communities on E&S.

Date	Participants	Format of interactions	Issues discussed	Contractor/ agreement reached (attach minutes if any)	Action taken if any (Remark)

Grievance Mechanism and Court Cases
- Report the number and type of requests and/or grievances received from project affected people / local communities / local organizations.
- How many have been resolved and how many are pending? (Please attach a log of the grievance redress registry.

Report the number and type of court cases on E&S grounds, if any (Please attach a log of all court cases and their status)

Annex 9: Waste Management Plan

1. INTRODUCTION

hazardous and non-hazardous wastes are a type of waste that poses a risk to human health or the environment due to its chemical or physical properties. Examples of hazardous waste include chemicals, batteries, pesticides, solvents, electronics, medical waste, asbestos, and contaminated soil. Hazardous waste must be managed and disposed of in a safe and responsible manner to prevent harm to human health and the environment. The purpose of this Waste Management Plan (WMP) is to provide guidance to the subprojects supported by the Finance for LLRP II Project on how to manage their hazardous waste and non-hazardous waste, from generation to final disposal. The WMP is based on the principles and requirements of the World Bank's ESF, national legislations, and World Bank General and Industry Specific EHSGs, which provide a systematic and structured approach to identify, assess, and manage the environmental and social risks and impacts associated with hazardous waste. The WMP also takes into account the specific characteristics and needs of the supported subprojects and is generic and simple to be able to tailor it to match industry specific requirements and aims to provide practical and feasible solutions that can be implemented in their daily operations.

2. Mitigation Measures for Hazardous and Non-Hazardous Waste Management

In accordance with the Ethiopia Solid waste Management proclamation and World Bank EHS Guidelines, the following are the general requirements for hazardous waste management;

1. **Waste minimization and prevention**

The WMP encourages the supported subprojects to adopt a waste minimization and reduction approach, which involves reducing the amount of hazardous waste generated at the source, by improving production processes, product design, and raw material selection. This approach can reduce the environmental and health risks associated with hazardous waste, and also lead to cost savings and resource efficiency. The WMP requires the factories to conduct a waste assessment to identify the types, quantities, and sources of hazardous waste generated, and to develop a waste minimization and reduction plan that sets targets, timelines, and performance indicators.

2. Segregation and Labelling

The WMP requires the subprojects to segregate hazardous waste from non-hazardous waste, and to label and store it separately, using appropriate containers, labels, and signage. This measure is important to prevent accidental exposure, contamination, and mixing of hazardous waste with other waste streams, which can increase the risks and costs of hazardous waste management. The WMP also requires subprojects to train their personnel on proper segregation and labeling practices, and to establish a monitoring and inspection system to ensure compliance.

3. Coordination with the relevant authorities and stakeholders

4. For storage, transportation, management, and disposal of hazardous waste, liaison and coordination is key to ensure adherence to national requirements and the World Bank's ESF and EHSGs through cooperation. The involvement of authorities will assist subprojects in identifying the most suitable management method or disposal location, ensuring compliance, and obtaining support to ensure the mitigation of potential E&S risks associated with hazardous waste Storage and Handling.

The hazardous WMP sets specific requirements for the storage and handling of hazardous waste, to ensure that it is stored and handled safely, securely, and in compliance with the applicable laws and regulations as well as the World Bank's ESF, ESS3, and the EHSGs. The HWMP requires subprojects to use designated areas for hazardous waste storage, that are equipped with adequate ventilation, lighting, fire protection, and spill containment measures. The WMP also requires subprojects to use appropriate personal protective equipment (PPE) for their personnel who handle hazardous waste, and to establish a maintenance and inspection system for the storage and handling equipment, other OHS aspects shall be

appropriately assessed during E&S screenings, addressed in E&S tools and plans, and included in the OHS plan.

5. Transportation

The WMP requires subprojects to use licensed and authorized transporters for the transportation of hazardous waste, and to comply with the applicable regulations for the transport of hazardous materials. The WMP requires the factories to ensure that the transporters have appropriate vehicles, equipment, and personnel for the safe and secure transport of hazardous waste, and that they follow the designated routes and schedules. The WMP also requires the factories to provide appropriate documentation and labeling for the hazardous waste during transportation, and to establish a monitoring and inspection system for the transporters.

6. Treatment and Disposal

Subprojects shall use authorized and licensed treatment and disposal facilities for waste, particularly for their hazardous waste, and to comply with the applicable regulations for hazardous waste treatment and disposal. The WMP requires the factories to select the most appropriate treatment and disposal options for their hazardous waste, based on their characteristics, quantities, and costs and in liaison with the relevant authorities such as FEPA, ministry of health (MoH) who shall be consulted to manage the waste. The WMP also requires the factories to establish a monitoring and reporting system for their hazardous waste treatment and disposal activities, and to regularly evaluate and improve their waste management practices.

7. Emergency Preparedness and Response

The WMP requires LLRP II to develop and implement an emergency preparedness and response plan for hazardous waste incidents, that identifies potential hazards, risks, and impacts, and sets procedures, roles, and responsibilities for emergency response. The WMP requires the LLRP II to train their personnel on emergency response procedures, and to establish communication and coordination mechanisms with the relevant authorities and stakeholders. The WMP also requires the factories to conduct regular emergency drills and exercises which shall be addressed in the Emergency Response Procedures.

3. Special types of hazardous waste management expected to be generated from LLRP II project

3.1 E-waste

The LLRP II project will involve the solar energy, which generates e-waste, such as electron panel, batteries etc.

LLRP II, E-Waste Management Plan				
e-waste generation minimization		-Selection of e-waste technologies and equipment based on international standards to maximize their lifetime and minimize associated risks at their end-of-life stage. -Procure electronic devices from credible manufactures to avoid purchasing second hand, refurbished, or obsolete devices with a short shelf life or already categorized as e-Waste. -Minimizing hazardous e-waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous e-waste to be managed. -Instituting procurement measures that recognize opportunities to return usable materials.	Contractor/FPCU/RPCU	
Collection		-Conduct safe collection and provide adequate training for e-waste collection workers. -Segregate e-waste from other waste for safe disposal.	Contractor/FPCU/RPCU	
Temporary Storage		E-waste can be stored at the public institute temporarily until it is collected. The temporary storage is to take place in specified and dedicated locations which are authorized by the specialized entities, and which take into regard the occupational health and safety considerations. Companies that are awarded the auction are required to fill the quantity forms that include the type of collected waste from the temporary storage locations. LLRP II and involved contractors shall ensure that the storage of project related e-waste is being conducted in accordance with the national laws and legislations, GIIPs such as the World Bank EHS Guidelines containing measures on Hazardous Waste, -waste shall be stored in a way that prevents and controls accidental release to natural resources (air, soil, and water). The following measures are to be followed in the storage of e-waste.	Contractor/FPCU/RPCU	

		-Temporary storage containers shall be available on site until transported into their final storage location. -E-waste shall be stored in closed containers, each depending on type and composition away from direct sunlight, rain, wind, electrical fixtures, water systems and in an area where ventilation system is not circulated to other rooms or facilities. -E-waste shall be stored in an appropriate manner preventing the mixing or contact between different sorts of e-waste and in a separate location from solid waste. -The storage arrangement shall allow for inspection between containers to monitor leaks or spills. Examples could include insufficient space between incompatible e-waste. -The Contractor, employees involved in the e-waste management, and the disposal or recycling enterprises shall provide their personnel with training and induction on the proper handling of e-waste. Employees involved with e-waste management shall be provided with the appropriate -Personal Protective Equipment (PPEs), vaccinations in accordance with the health Law and the bylaw on hazardous waste, and a medical record shall be kept. -Containers with different types of e-waste shall be correctly labelled, with a datasheet attached and specified for each type including but not limited to number of containers, number of units within each container, type, weight, hazardous material content (Lead, mercury, etc…), date of collection, e-waste management personnel name, receiver, and final disposal method. -Conduct periodic inspection of e-waste storage area and document the findings.		
Transportation		In terms of transportation should be done through safe and adequate vehicles and machinery to transport e-waste in accordance with this decree. The transport destination shall be the transfer stations, treatment facilities, or final disposal locations. e-waste containers designated for off-site transport shall be secured in the designated. storage location and shall be labelled as	Contractor/FPCU/RPCU	

		hazards, receiver, destination, and other information. E-waste shall then be properly loaded onto the transport vehicles in accordance with OHS guidelines on loading and unloading, specified in the World Bank EHS Guidelines, ILO guidelines, and other GIIP. -The e-waste containers shall be accompanied by an e-waste transfer note, in the form of a transport manifest that describes the load and its associated hazards, in suitable and well-suited vehicles in accordance with GIIPs. The handler and transporter shall be registered and certified.		
Monitoring		-When significant quantities of hazardous e- wastes are generated and stored on site, monitoring activities shall include: -Weekly visual inspection of all e-waste storage collection and storage areas for evidence of accidental releases and to verify that e-waste is properly labelled and stored. -Weekly visual inspection of labelling, quantities, and containers conditions. -Weekly inspection of loss or identification of cracks, corrosion, or damage to protective equipment, or floors. Monitored by the E&S -Verification of locks, and other safety devices for easy operation (lubricating if required and employing the practice of keeping locks and safety equipment in standby position when the area is not occupied). -Documenting any changes to the storage facility, and any significant changes in the quantity of materials in storage. -Regular audits of e-waste segregation and collection practices. -Tracking of e-waste generation trends by type and amount, preferably by facility departments.	FPCU/RPCU, FEPA/REPA	

3.2 Asbestos Management Plan

During the implementation of the LLRP II project, the utilization of asbestos and asbestos containing materials (ACM) is not expected. In case of asbestos use, this asbestos management plan will be applied. This Asbestos Management Plan is principles-based and will be revised during implementation with the assistance of an asbestos expert to provide more specific guidance on management of ACM encountered under the project. The Management Plan draws on good international industry practice with the objective of protecting worker and community health.

Asbestos is a group of naturally occurring fibrous minerals with current or historical commercial usefulness due to their extraordinary tensile strength, poor heat conduction, and relative resistance to chemical attack (WHO). The properties that make asbestos fibers so valuable to industry are its high-tensile strength, flexibility, heat and chemical resistance, and good frictional properties. There are two main types of asbestos containing materials (ACM): a) friable and b) bonded.

a) Friable asbestos products are soft and loose and can be crumbled into fine material or dust with very light pressure, such as crushing with your hand. Such products usually contain high levels of asbestos (up to 100% in some instances), which is loosely held in the product so that the asbestos fibers are easily released into the air. Friable asbestos products are dangerous because the asbestos fibers can get into the air very easily and may be inhaled by people living or working in the vicinity. Bonded asbestos products are made from a bonding compound (such as cement) mixed with a small proportion (usually less than 15%) of asbestos.

b) Bonded asbestos products are solid, rigid and non-friable. The asbestos fibres are tightly bound in the product and are not normally released into the air. When in good condition, bonded asbestos products do not normally release any asbestos fibres into the air and are considered a very low risk for people who are in contact with them, as long as appropriate safety precautions are used when they are disturbed.

The World Bank policy on asbestos (World Bank Group, 2009) promotes good practice in minimizing the health risks associated with ACM by:

- avoiding its use in new construction and renovation; and

- by using internationally recognized standards and best practices to mitigate health and safety risks when removing existing ACM.

In all cases, the Bank expects borrowers and other clients of World Bank funding to use alternative materials wherever feasible. ACM should be avoided in new construction, including construction for disaster relief. In reconstruction, demolition, and removal of damaged infrastructure, asbestos hazards should be identified, and a risk management plan adopted that includes disposal techniques and end-of-life sites.

Training A training program will need to be developed for the contractor's workers that will be involved in the removal, packaging, transport and disposal of ACM. The training program must be appropriate for the activity, undertaken prior to the commencement removal activities and include the following elements:

• The nature of the hazards and risks

• How asbestos can affect a person's health and the risks arising from exposure to airborne asbestos.

• The control measures in place and maintenance of the asbestos removal control plan for that job.

• The methods and equipment that will be used to do the job properly.

• Choosing, using and caring for personal protective equipment (PPE) and respiratory protective equipment (RPE).

• Decontamination procedures.

• Waste disposal procedure; and

• Emergency procedures. Two levels of training are proposed under the Safety Instruction on Asbestos Handling:

• Supervisor (40 hours) - focused on planning and organizing asbestos removal and handling activities; and

• Worker (8 hours) - focused on hazard awareness, protective equipment and following the asbestos management plan. Asbestos Removal Control Plan is a document that identifies the specific control measures to be used to ensure workers and other people are not at risk when asbestos removal work is being conducted. It is focused on the specific control measures necessary to minimize any risk from exposure to asbestos. An asbestos removal control plan helps ensure the asbestos removal is well planned and carried out in a safe manner. The Control Plan must include details of:

• How the asbestos removal will be carried out, including the method, tools, equipment and PPE to be used; and

• The asbestos to be removed, including the location, type and condition of the asbestos. Each contractor will be required to prepare its own Control Plan which will need to specify the PPE that will be provided to workers and also the budget provision in its bill of quantities (BoQ). Access Control Signs are to be erected at each removal site to indicate where the asbestos removal work is being carried out and barricades erected to delineate the asbestos removal area. Access to the removal area must be limited to the following people:

• Workers who are engaged in the removal work;

• Other people who are associated with the removal work; and

• People who are allowed under the Regulations to be in the asbestos removal area (for example inspectors, emergency service workers). Decontamination for the work area, workers, PPE and tools used in asbestos removal work is an important process in eliminating or minimizing exposure to airborne asbestos fibres, particularly to people outside the asbestos removal work area. The risks of each individual asbestos removal job should be assessed to determine the appropriate decontamination procedure.

Decontamination facilities must be available to decontaminate the asbestos removal work area, any plant used in that area, workers carrying out the asbestos removal work, and other persons who have access to the asbestos removal area because they are associated with the asbestos removal work. Waste Containment and Disposal Proper disposal of ACM is important not only to protect the community and environment but also to prevent scavenging and reuse of removed material. ACM should be transported in leak-tight containers to a secure landfill operated in a manner that precludes air contamination that could result from ruptured containers (World Bank, 2009). The removal contractor must ensure that asbestos waste is contained and labelled before it is removed from the asbestos removal area. Waste must be disposed of as soon as is practicable at a site authorized to accept asbestos waste. The disposal site and method for disposal and containment will be determined in consultation with the federal environmental protection authority. Removing Friable Asbestos The asbestos within the pipe insulation is friable posing an increased risk of airborne fibre generation. All friable asbestos must be removed using the wet spray method. This method requires the use of a constant low-pressure water supply for wetting down asbestos and related items to suppress asbestos fibres. Asbestos fibres are significantly suppressed under this method however they are not entirely eliminated so the use of RPE is also essential. Consideration should be given to applying a polyvinyl acetate (PVA) emulsion as it may be more effective than water in minimizing fibre release. Fully or partially enclosing shall be used at worksite with friable asbestos removal to avoid asbestos contamination spread to environment.

Personal Protective Equipment As asbestos removal is a high hazard activity, appropriate personal protective equipment (PPE) must be worn regardless of other health and safety control measures in place. PPE must be selected to minimize the risk to health and safety by ensuring it is:

• Suitable for the nature of the work and any hazard associated with the work;

• A suitable size and fit and reasonably comfortable for the person wearing it;

• Maintained, repaired or replaced so it continues to minimize the risk, including ensuring that the PPE is clean, hygienic and in good working order; and

• Used or worn by the worker, so far as is reasonably practicable. Workers must provide with information, training and instruction in the proper use and wearing of PPE, and its storage and maintenance. A worker must, so far as reasonably able, wear the PPE in accordance with any information, training or reasonable instruction. The effectiveness of PPE relies heavily on workers following instructions and procedures correctly, as well as fit, maintenance and cleaning. If PPE must be used for long periods, if dexterity and clear vision are needed for the task, or if workers have not been adequately trained on how to fit and use PPE properly, workers might avoid using it. PPE includes the following items:

• Coveralls - ideally disposable coveralls should be provided which are of a suitable standard to prevent tearing or penetration of asbestos fibres; one size too big, as this will help prevent ripping at the seams; and fitted with hood and cuffs to prevent entry of asbestos fibres;

• Gloves - gloves should be worn when conducting asbestos removal work. If significant quantities of asbestos fibres may be present, single-use disposable nitrile gloves should be worn. Gloves used for asbestos removal work should be disposed of as asbestos waste;

• Safety footwear - safety footwear (for example steel-capped, rubber-soled work shoes or gumboots) should be provided for all workers removing asbestos. Safety footwear should be laceless, as laces and eyelets can be contaminated and are difficult to clean. The footwear should remain inside the asbestos removal area for the duration of the asbestos removal work and should not be shared for hygiene reasons;

• Respiratory protective equipment (RPE) - all workers engaged in asbestos removal work must wear RPE conforming to the appropriate international standard. The selection of suitable RPE depends on the nature of the asbestos removal work, the probable maximum concentrations of asbestos fibres expected and any personal characteristics of the wearer that may affect the facial fit of the respirator (for example facial hair and glasses).

Waste Transport and Disposal

When developing a waste transport and disposal plan, the following should be taken into account: • The containment of waste so as to eliminate the release of airborne asbestos fibres;

• Details of any asbestos or ACM to be left in situ;

• The location and security of waste storage on site;

• The transport of waste within the site and off site;

• The location of the waste disposal site;

• Approvals needed from the relevant local disposal authority; and

• Any local disposal authority requirements that may apply to the amount and dimensions of asbestos waste. Loose asbestos waste must not accumulate within the asbestos removal work area. The loose asbestos waste should be placed in labelled asbestos waste bags or wrapped in heavy-duty polyethylene sheeting (minimum 200 µm thickness) and labelled. Once the labelled asbestos waste has been removed from the asbestos removal area it should either be placed in a solid waste drum, bin or skip; or removed immediately from the site by an approved/licensed carrier for disposal.

4. The Generated Hazardous Waste During LLRP II Implementation Inspection Form

Type of hazardous/infectious waste	**Hazardous Content? (Pb, Hg, PAH, …)**	**Segregated**	**Stored**	**Recycled/ Reused/ Recovered**	**Disposed**	**Satisfactory**
E-waste Type Generated						
Asbestos						
Infectious waste						
Pesticides						
Other hazardous material						

Annex 10: Occupational Health and Safety Plan

1. INTRODUCTION

This Occupational Health and Safety requirements document identified the necessary measures to implement during construction and operational phases. Every project has Health, Safety, and Environmental risks, many of which are common through all projects, and some are specific to individual operations. It is the contractor's duty during construction, and the company's duty during operation to assess all related risks and identify appropriate additional measures to protect Occupational and Community health and safety. This document sets the requirements in line with national laws and legislations including the Ethiopia Labor Law, the General EHS Guidelines of the World Bank, and Good International Industry Practices (GIIP). The aim of the OHS plan is to outline and define the approach to health and safety to be adopted during the construction and operational phases. It also aims to highlight potential hazards specific to the project, as well as more general hazards, and to define the procedures by which these hazards shall be addressed. This document shall be reviewed and updated throughout the life of the project to incorporate any changes the project is likely to experience.

1.1. OBJECTIVES

• Adopt a positive Health & Safety Culture.
• Adopt the principles of prevention to avoid risk.
• Complete the project without incident (Zero fatalities, Zero Lost Time Injury (LTI) or occupational illness).

2. KEY RESPONSIBILITIES

Involvement of all in implementing, maintaining and continually improving OHS processes is the key to successful completion and achievement of quality objectives set by the management. Contractors involved in the project shall familiarize themselves with the ESMP and the OHS requirements document, based on which they shall develop an OHS Plan. All project personnel shall therefore be required to be familiar with the content of this OHS requirements document and shall participate in implementing, maintaining and improving the management system. It is the responsibility of the project manager and all key personnel to ensure that the requirements for quality are fulfilled for works under their responsibility. All new staff and staff who are given new responsibilities are to be inducted into the requirements set out in this document in general and into their function and responsibilities in particular.

3.1. Subproject's OHS Personnel - Review and update the OHS documentation, and procedures.

- Monitor the efficient implementation of OHS requirements. - Participate and organize the OHS risk assessments.
- Advise management of compliance and of conditions requiring attention.
- Make thorough analysis of statistical data and inspections; delineates problem areas; and makes recommendation for solutions.
- Take part in the review of all OHS incidents and assist in investigating incident. - Monitor the efficient implementation of the Project's OHS requirements.
- Organize the Project's OHS risk assessment exercises.
- Check on the use of all types of personal protective equipment specifies the use of appropriate PPE for the various work activities. Evaluates their effectiveness and suggests improvements where indicated.

- Check on the use of all types of personal protective equipment specifies the use of appropriate PPE for the various work activities. Evaluates their effectiveness and suggests improvements.
- Conduct independent inspections to observe conformance with the OHS Plan to be prepared and determine the effectiveness of individual elements of the plan (pre-task briefing, weekly toolbox talk, etc.)
- Establish contact with contractors and suppliers with the objective of maintaining good relations and coordination of accident prevention activities and compliance with the established OHS plan.
- Correct unsafe acts and unsafe conditions. - Deliver HSE induction/orientation course to all employees, including contractors and suppliers. - Deliver HSE awareness course and toolbox talk.
- Advise employees on OHS matters.
- Implement the Emergency Response Procedures (ERP), that will detail the processes for dealing with emergencies including injury.
- prepare site-specific OHS plan including precautions. The plan would clarify who is responsible for what, risk assessment, job hazards assessment and mitigation measures that should be in place for each job.
- Keeping safety records and shall be responsible for completing safety inspections and maintaining records to reflect findings and corrective actions taken.
- The company shall require employees who, in the course of their work, are subject to the hazards of electrical shock, asphyxiation, or other specific risks, to receive special training e.g. usage of artificial respiration. Special training should also be included in all risky works, such as working at heights, scaffolds, trenches, confined spaces. - Oversee the implementation and efficiency of the Grievance Mechanism.

3.2. ALL EMPLOYEES RESPONSIBILITIES

• Take all reasonable and practical steps to care for their own health and safety and avoid affecting the health and safety of coworkers and the general public.
• Follow all instructions and use the equipment properly
• Not interfere with any safety arrangements.
• Report any circumstances which may not comply with the project's OHS management system.

3.3. COMPETENCY

All personnel required to operate or work with any equipment or machine must be competent, be tested for each equipment that he/she shall be operating. All personnel who as part of their profession require licensing or certification must obtain the necessary certification before he/she shall be allowed to work on the site.

All personnel working on site shall be required to be certified medically fit to do so by an approved medical facility or Medical Doctor (pre-employment medical examination).

3.5. PERSONAL CONDUCT WHILE ON DUTY

The use of alcohol during working hours, including lunch hour, is strictly prohibited. Any violation shall be considered sufficient cause for disciplinary action. Any Workers/employee reporting for duty under the influence of liquor, illegal drugs, or illegal smoking materials will be dismissed. Any supervisor or other person in charge who permits such an employee to work will also be subject to disciplinary action.

4. MONITORING AND REPORTING

Monitoring and reporting will be conducted by subproject proponent.

Provisions on community and OHS will be included as part of the periodic progress reports. The monitoring program should include:

• Safety inspection, testing and calibration: This should include regular inspection and testing of all safety features and hazard control measures focusing on engineering and personal protective features, work procedures, places of work, installations, equipment, and tools used.

• The inspection should verify that PPE continues to provide adequate protection and is being worn as required. All instruments installed or used for monitoring and recording of working environment parameters should be regularly tested and calibrated, and the respective records maintained.
• Surveillance of worker's health: health of the Project's staff will be monitored on a regular basis through conducting general medical checkup, and continuous monitoring.
• Training: Training activities for workers and visitors should be adequately monitored and documented (curriculum, duration, and participants). Emergency exercises, including fire drills, should be documented adequately. Service providers and contractors should be contractually required to submit to the employer adequate training documentation before the start of their assignment.

5. HSE TRAINING

5.1. BASIC OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

The employed staff, including management, supervisors, and workers of the project (both during construction and operation) need to receive basic OHS &EHS training to ensure proper orientation to the general and specific hazards of individual work assignments and to protect the general public, neighbors, their properties, and visitors to the site. Special training needs to be provided for workers in charge of rescue and first-aid duties. Project's staff and workers shall receive awareness sessions that include information on workers GM, GBV, SH and SEA. In general, the OHS training would cover the followings:

• Basic hazard awareness & color coding,
• Site-specific hazards,
• Safe work practices,
• Workers GM
• Code of Conduct including GBV, SH and SEA related issues, and
• Emergency procedures for fire, spill, leaks, evacuation, and disaster
• Knowledge of materials, equipment, and tools
• Known hazards in the operations and how they are controlled.
• potential risks to health e.g. waterborne & blood borne.
• Chemical and hazardous material handling
• Precautions to prevent exposure.
• Hygiene requirements
• Wearing and use of protective equipment and clothing
• Appropriate response to operation extremes and accidents
• Principles of first aid

5.2. INDUCTION/ORIENTATION

Every new or rehired employee, including contractors' workers during the construction and installation phase, must undergo mandatory OHS orientation / induction. The purpose of the Induction is to educate workers and make them aware of the major potential hazards he or she shall come into contact with while working on the site; also, it is one more opportunity to stress the importance of HSE being the first priority in the operations.

5.3. PROJECT SPECIFIC HSE TRAINING

In addition to the HSE orientation /induction, there shall be specific site HSE trainings which shall cover the following topics:

• Manual handling.
• Electrical Safety
• Emergency Prevention, Preparedness and Response
• Work at height training
• First Aid training (for site First Aiders)
• Lifting and Rigging
• Safe Driving techniques (for drivers)

• hazardous material and waste handling

6. HAZARD IDENTIFICATION & HSE RISK ASSESSMENT

6.1. PROJECT HSE RISK ASSESSMENT

The project HSE risk assessment shall be developed and recorded.

6.2. PHYSICAL HAZARDS

Physical hazards represent potential for accident or injury or illness due to repetitive exposure to a mechanical action or work activity. Single exposure to physical hazards may result in a wide range of injuries, from minor and medical aid only, to disabling, catastrophic, and/or fatal. Multiple exposures over prolonged periods can result in disabling injuries of comparable significance and consequence.

6.3. ROTATING AND MACHINE MOVEMENT

Possible Injury or death can occur from being trapped, entangled, or struck by machinery parts due to unexpected starting of equipment or unobvious movement during operations. Therefore, safety measures as well as respective Personal Protection Equipment's (PPES) as per the safety Data Sheet (SDS) for each equipment need to be adopted and

6.4. NOISE

The project management will ensure that no employee will be exposed to a noise level greater than 85 dB for a duration of more than 8 hours per day without hearing protection measured regularly. It must be ensured that excessive noise generating equipment and noise control equipment (e.g. barriers, enclosures, and mufflers) are maintained regularly according to the preventive maintenance schedule.

6.5. ELECTRICAL HAZARDS

All electrical equipment and installations should be constructed, installed, and maintained by a competent person, and so used as to guard against danger. Before construction is commenced and during the progress thereof, adequate steps should be taken to ascertain and to guard against danger to workers from any live electrical cable or apparatus which is under, over or on the site. The laying and maintenance of electrical cables and apparatus on construction sites shall be governed by national laws and regulations. All parts of electrical installations shall be of adequate size and characteristics for the power requirements and work they may be called upon to do and in particular they should:

• Be of adequate mechanical strength to withstand working conditions in construction activities;

• Not be liable to damage by water, dust or electrical, thermal, or chemical action to which they may be subjected in construction activities.

• The electrical distribution at each site should be via an isolator which cuts off current from all conductors, is readily accessible and can be locked in the "off" position but not locked in the "on" position.

• The power supply to all electrical equipment should be provided with a means of cutting off current from all conductors in an emergency.

• All electrical appliances and outlets should be clearly marked to indicate their purpose and voltage.

• When the layout of an installation cannot be clearly recognized, the circuits and appliances should be identified by labels or other effective means.

• Circuits and appliances carrying different voltages in the same installation should be clearly distinguished by conspicuous means such as colored markings.

• Adequate precautions should be taken to prevent installations from receiving current at a higher voltage from other installations.

• Where necessary to prevent danger, installations should be protected against lightning. Lines for signaling and telecommunication systems should not be laid on the same supports as medium- and high-voltage lines. To prevent exposure to electrical risks the followings need to be considered:

• Marking all energized electrical devices and lines with warning signs

• Checking all electrical cords, cables, and hand power tools for frayed or exposed cords and following manufacturer recommendations.

• Double insulating / grounding all electrical equipment used in environments that are, or may become, wet.
• Protecting power cords and extension cords against damage from traffic by shielding or suspending above traffic areas.
• Appropriate labeling of service rooms housing high voltage equipment ('electrical hazard') and where entry is controlled or prohibited.

6.6. TRAFFIC AND DRIVING SAFETY

Vehicle driving and site traffic safety practices will include:
• Training and licensing vehicle drivers of the during construction of specialized vehicles such as forklifts, including safe loading/unloading, load limits.
• Establishing rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures, and control of traffic patterns or direction/ direction signs.
• Restricting the circulation of delivery and private vehicles to defined routes and areas, giving preference to 'one-way' circulation, where appropriate.
• The Identification of important roads that could result in nuisance to NSRs, avoid main roads leading through town and rely on external routes.
• Plan vehicle (material & waste) transport routes & schedules avoiding narrow/sensitive roads and peak traffic timings.
• Heavy vehicles should not enter narrow local roads and sensitive areas of the town, except in the immediate vicinity of delivery sites.

6.7. SLIP AND FALL FROM HEIGHTS

Slips and falls on the same elevation associated with poor housekeeping, such as excessive waste debris, loose materials, liquid spills, and uncontrolled use of electrical cords and ropes on the ground, are also among the most frequent cause of lost time accidents at construction sites. Recommended methods for the prevention of slips and falls from, or on, the same elevation include implementing good house-keeping practices, such as the sorting and placing of loose materials or debris in established areas away from foot paths, cleaning up excessive waste debris and liquid spills regularly, locating electrical cords and ropes in common areas and marked corridors, and uses of slip retardant footwear. Falls from elevation associated with working with ladders, scaffolding, cleaning of solar panels, and partially built structures are among the most common cause of fatal or permanent disabling injury at construction sites. If fall hazards exist, a fall protection plan should be in place which includes one or more of the following aspects, depending on the nature of the fall hazard, including: training and use of personal fall arrest systems, as well as fall rescue procedures to deal with workers whose fall has been successfully arrested, the tie in point of the fall arresting system, use of control zones and safety monitoring systems to warn workers of their proximity to fall hazard zones, as well as securing, marking, and labeling covers for openings in floors, roofs, or walking surfaces, workers wearing appropriate PPE (e.g., hard hats, safety boots), Proper Signs in Arabic.

6.8. FIRE RISK

A fire risk assessment shall be developed and mitigation measures to be included in E&S management tools. Chemical Hazards Prior to any potentially hazardous substances, especially pesticides, being brought onto the site, the following precautions shall be taken:
• Information on the hazards of the materials – Material Safety Datasheet (MSDS) shall be obtained from the manufacturer or supplier and communicated to all users.
• Where the use of toxic solvents, certain thinners, certain paints or volatile chemical substances cannot be avoided, special precautions should be taken such as providing general and local exhaust ventilation, and, if this is not practicable or is inadequate, respiratory protective equipment should be used. Such measures should be applied more rigorously in situations when such chemicals are heated or used in

confined spaces. Paints and adhesives which present health hazards should be replaced with water dispersed products.

• The following aspects shall be considered prior to purchasing and/or using hazardous substances: - Identification of substance(s) - Nature of hazards - Degree of exposure - Degree of risk - Exposure of control measures - Necessity for monitoring/health surveillance - Induction/training requirements.

• Hazard materials will be stored in a separate location under supervision of Safety engineer/ E&S Coordinator and according to the approved safety data sheets instructions.

• Training and education procedures for the control of hazardous materials shall be provided for all personnel who may come in contact with or be affected by those materials.

• Those responsible for the introduction of hazardous material(s) into the workplace shall ensure that appropriate training has been provided. Training shall include the requirements for safe handling, transport, storage, disposal and environmental protection. However, chemical hazards represent potential for illness or injury due to single acute exposure or chronic repetitive exposure to toxic materials including the risk explosion. Chemical hazards will be prevented through:

• If possible, replacement of the hazardous substance with a less hazardous substitute Keeping the number of employees exposed to a minimum and the level of exposure below internationally established limits.

• Corrosive, oxidizing, and reactive chemicals that can lead to the release of flammable or toxic materials and gases and may lead directly to fires and explosions should be stored in well-ventilated areas, handled with precautions and need to be segregated from flammable or other chemical that can react (acids vs. bases, oxidizers vs. reducers, water sensitive vs. water based, etc.).

• Workers who are required to handle corrosive, oxidizing, or reactive chemicals should be provided with specialized training and provided with, and wear, appropriate PPE (gloves, apron, splash suits, face shield or goggles, etc.). Equipped first-aid stations should be easily accessible throughout the place of work, and eye-wash stations and/or emergency showers should be provided close to all workstations where the recommended first-aid response is immediate flushing with water.

7. SAFETY SIGNAGE

Safety signs (machinery, electrical, noise, fall, and others) shall be available on site, visible, and in Amharic and other local language.

8. PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards. The LLRP II and contractors/subcontractors are responsible for requiring the wearing of appropriate personal protective equipment in all operations where there is an exposure to hazardous conditions or where this part indicates the need for using such equipment to reduce the hazards to the workers, employees and visitors. All personal protective equipment shall be of a safe design and construction for the work to be performed. The contractor/subcontractor shall take every practicable measure to eliminate hazards through the selection of non-hazardous materials and/or by engineering controls, e.g., prohibition, substitution, enclosure, etc. Workers working alone in confined spaces, enclosed premises or in remote or inaccessible places should be provided with an appropriate alarm and the means of rapidly summoning assistance in an emergency, especially on the company operated farms. Ensure the visibility of workers through their use of high visibility vests when working on roads or walking through heavy equipment operating areas. High visibility waistcoats during all construction phases of the project. Additional PPE requirements, e.g., fall protection, respiratory protection, face shields, hearing protection, gloves, winter PPE, etc., shall be determined/mandated by the nature of the individual work activities.. PPE should be stored, maintained, cleaned and, if necessary, for health reasons, disinfected or sterilized at suitable intervals. Workers should be required to make proper use of and to take good care of the personal protective equipment and protective clothing provided for their use.

Where there is no practical alternative to the use of PPE, appropriate training shall be given to employees to ensure that they are fully conversant with the construction, processes, and equipment they are working with appropriate PPE for the project shall consist of the following:

• Safety helmet
• Light duty safety glasses
• Safety boots
• Safety gloves, protection against cuts or sharp materials
• Protection against cold or heat
• Protection against bacteriological risks Workers should be instructed on the use of personal protective equipment and protective clothing. Training in the correct selection, and proper use of personal protective equipment shall be provided to workers.

9. FIRST AID

Following are nine general directions for first aid in an emergency, outlined by the American Red Cross.

• Keep the victim lying down.
• Examine the victim - look for serious bleeding, lack of breathing, and poisoning.
• Keep the victim warm.
• Send someone to call a physician or ambulance.
• Remain calm. Do not be rushed into moving the victim unless absolutely necessary.
• Never give an unconscious victim anything to eat or drink.
• Keep the crowd away from the victim.
• Ensure the victim is comfortable and cheerful.
• Don't allow the victim to see his injury. At least one employee/worker trained in first aid shall be present at all times during working hours. The Trained person phone will be distributed to all the workers on the site at highlighted boards and listed in the contact number list. All workers can access first aid kits in approximately 5 minutes. Kits must be available at all times. The first aid equipment may contain and not limited to the following:
• Plasters in a variety of different sizes and shapes
• Small, medium and large sterile gauze dressings
• Sterile eye dressings
• Triangular bandages
• crêpe rolled bandages.
• Safety pins
• Disposable sterile gloves
• Tweezers
• Scissors
• Alcohol-free cleansing wipes
• Sticky tape
• Thermometer (preferably digital)
• Skin rash cream, such as hydrocortisone or calendula
• Cream or spray to relieve insect bites and stings.

Painkillers such as paracetamol

• Cough medicine
• Antihistamine cream or tablets
• Distilled water for cleaning wounds
• Eye wash Knowing what not to do in an emergency is just as important as knowing what to do. The original injury may be magnified by the wrong kind of treatment or mishandling. If a victim must be transported, ensure that methods described in a standard first aid text are used. With neck or back injuries, particularly, serious damage may occur by improperly transporting the victim. If possible, the

victim should remain at the site where the injury occurred until a physician arrives, rather than risk an increase to the injury through mishandling. Further information is expected to be received during the OHS training.

10. HSE IMPLEMENTATION AND PERFORMANCE MONITORING

10.1. HSE MEETINGS

HSE management meetings shall be held once a month. The meeting is to help identify safety problems, develop solutions, review incident reports, provide training and evaluate the effectiveness of our safety program. Some of the meetings shall be:

- Project/Site Management HSE Meeting for management and supervision (Monthly).
- Toolbox talk meetings for all workforce (Weekly).
- Pre-task briefing for all workforces (Daily).
- Special situation meeting (As required).

10.2. HSE Reporting

All incidents and illnesses must be reported to site supervisor after which investigation shall commence and recorded so that appropriate corrective actions shall be implemented to prevent any reoccurrence and report findings shall be forwarded to management for review. Reporting requirements shall include notification of incident, investigation report, and monthly report. Notification of Incident form shall be developed which shall be filled in and submitted to HSE department for investigation.

11. GENERAL COMMUNITY AND OCCUPATIONAL HEALTH AND SAFETY RULES

The project HSE rules shall be developed, and supervision shall develop specific rules and procedures when necessary. The following site rules shall be implemented at all times. The Site Manager shall draw these rules to the attention of their own workers or staff. All contractors must ensure that these rules are drawn to the attention of their workers and staff. The HSE rules shall include but not limited to:

1. Personal Protective Equipment must be worn at all times.
2. All instructions issued by the Site Manager regarding the storage, handling or cleaning of materials, plant and equipment must be followed.
3. All vehicles must be parked in the designated areas.
4. Any workman suffering from a medical condition that might affect his work and/or that could require specific medical treatment must inform the supervisor before commencing work.
5. No one shall be permitted on site if it is believed that they are under the influence of alcohol or drugs.
6. Vehicles must not reverse without a banksman in attendance.
7. All visitors to the site must undergo a site-specific induction and operative Identity badges must be worn at all times.
8. Smoking and eating shall only be permitted in the designated area. This area shall be identified during induction.
9. There shall be no radios or other music playing devices on site.
10. Good housekeeping practices to be adopted.
11. All Contractors must comply with Site Health & Safety Guidelines.
12. No untrained worker shall be permitted to operate heavy machineries.