

Participatory Agriculture and Climate Transformation Programme

Environmental Social and Climate Management Framework

International Fund for Agriculture Development

Final Report

September 2022
Addis Ababa, Ethiopia

Abbreviations and Acronyms

ACC	Agricultural Commercialization Clusters
AfDB	African Development Bank
ADLI	Agricultural Development-Led Industrialisation
AGRA	Alliance for a Green Revolution in Africa
ASAP+	Enhanced Adaptation for the Smallholder Agriculture Programme
AEZ	Agro-Ecological Zone
ATI	Agricultural Transformation Institute
AWPB	Annual Work Plan and Budget
B2B	Business to Business
BMGF	Bill and Melinda Gates Foundation
BOA	Bureau of Agriculture
BOQ	Bill of Quantity
BRAM	Borrowed Resources Access Mechanism
CC	Climate Change
CLA	Collaborative Learning and Adaptation
COSOP	Country Strategic Opportunities Programme
COVID-19	Corona Virus Disease-2019
CRGE	Climate Resilient Green Economy
CSA	Central Statistics Agency
CSA	Climate-Smart Agriculture
DA	Development Agent
DP	Development Partner
EIAR	Ethiopian Institute for Agricultural Research
EFA	Economic and Financial Analysis
EFS	Ethiopia Food System
EIB	European Investment Bank
EPA	Environment Protection Authority
ENRM	Environment and Natural Resources Mapping
ESIA	Environmental and Social Impact Assessment
ESCMF	Environmental Social and Climate Management Framework
ESCMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organisation of the United Nations
FBS	Farmer Business School
FCA	Federal Cooperative Agency
FFS	Farmer Field School
FFV	Fresh Food Voucher
FNCO	Food and Nutrition Coordination Office
FPCMU	Federal Programme Coordination and Management Unit
FTC	Farmer Training Centre

FRG	Farmer Research Group
GALS	Gender Action Learning Systems
GAPs	Good Agricultural Practices
GBV	Gender Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gas Emissions
GII	Gender Inequality Index
GIS	Geographic Information System
GMF	Gender Model Family
GoE	Government of Ethiopia
GTM	Gender Transformative Mechanism
GTP	Growth and Transformation Plan
Ha	Hectares
HH	Household
IAIP	Integrated Agro-Industrial Park
ICB	International Competitive Bidding
IGREENFIN	Inclusive Green Finance
IFC	International Financing Corporation
IFAD	International Fund for Agriculture Development
ICO	IFAD Country Office
ICRAF	International Centre for Research in Agroforestry
ICT	Information Communication and Technology
IGIP	Integrated Agro Industrial Parks
INRM	Integrated Natural Resources Management
IPM	Integrated Pest Management
IVR	Interactive Voice Response
IWUA	Irrigation Water Users' Association
KM	Knowledge Management
LDSF	Land Degradation Surveillance Framework
MoA	Ministry of Agriculture
M&E	Monitoring and Evaluation
MoFED	Ministry of Finance and Economic Development
MRE	Monitoring, Reporting and Evaluation
MTR	MidTerm Review
NAIP	National Agricultural Investment Plan
NAP-ETH	Ethiopia's National Adaptation Plan
NbS	Nature-based Solutions
NCB	National Competitive Bidding
NGO	Non-Government Organisation
NMIS	National Management Information System
NOTUS	No-Objection Tracking Utility System
NPSC	National Programme Steering Committee

OFSP	Orange-Flesh Sweet Potatoes
PACT	Participatory Agriculture and Climate Transformation Programme
PASIDP	Participatory Small-Scale Irrigation Development Programme
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PDO	Programme Development Objective
PDR	Programme Design Report
PDT	Project Delivery Team
PHL	Post-Harvest Loss
PIM	Programme Implementation Manual
RPCMU	Regional Programme Coordination and Management Unit
RPSC	Regional Project Steering Committee
RPSF	Rural Poor Stimulus Fund
RUFIP	Rural Financial Intermediation Programme
SBCC	Social Behaviour Change Communication
SBD	Standard Bidding Document
SECAP	Social, Environmental and Climate Assessment Procedures
SDGs	Sustainable Development Goals
SNNPR	Southern Nations, Nationalities and Peoples Region
SO	Strategic Objective
SoE	Statement of Expenditure
SUN	Scale-Up Nutrition
TVET	Technical and Vocational Education and Training
UNFSS	United Nations Forum for Sustainability Standards
USD	United States Dollar
USSD	Unstructured Supplementary Service Data
WC	Watershed Committee
WASH	Water Sanitation and Hygiene
WB	World Bank
WFP	World Food Programme
WUA	Water Users' Association

Table of Contents

Abbreviations and Acronyms	i
List of tables	vii
List of Figures	vii
Executive Summary	viii
1. Introduction and Background	1
1.1. Introduction	1
1.2. Objectives of the ESCMF	3
2. Study Methodology	4
3. Description of PACT Project	5
4. Rationale for the Landscape Approach	9
5. Relevant Environmental Policy, Legal and Institutional Framework	10
5.1. National Level Framework	10
5.1.1. The Constitution	10
5.1.2. Relevant Environmental Policies	11
5.1.3. National proclamations and regulations	17
5.1.4. Environmental Management Guidelines	22
5.1.5. Relevant and applicable International Conventions and protocols ratified by Ethiopia	23
5.1.6. Relevant Institutions	26
5.2. Social, Environmental and Climate Assessment Procedures (SECAP, updated in 2021)	34
6. Socio-economic and Environmental Baseline	42
6.1. National Context	42
6.2. Socio-economic and Environmental Baseline at the Regional levels	43
6.2.1. Amhara National Regional State	44
6.2.2. Oromia National Regional State	46
6.2.3. Southern Nations and Nationalities and Peoples Regional State (SNNPRS)	50

6.2.4.	Somali Region	52
6.2.5.	Sidama Regional State	55
6.3.	Ethiopian National Parks	59
6.4.	Wildlife Reserves and Sanctuaries	65
6.5.	International designated Areas	65
6.6.	Vulnerable Groups and Underserved Peoples in the program areas	66
6.7.	Women	66
6.8.	Pastoral and Agro-Pastoral Groups	67
6.9.	Unemployment and Underemployed Rural Youths	69
7.	Potential Environmental, Social and Climate Impacts, Risks, & Proposed Mitigation Measures	70
7.1.	Positive Impacts	70
7.2.	Positive Role of PACT Project in the Adaption and Mitigation of Climate Change	75
7.3.	Adverse Impacts on Social, Environmental and Climate and Proposed Mitigation measures	76
7.3.1.	Social, Environment and Climate and Risks and Proposed Mitigation Measures	76
8.	Social, Environmental and Climate management Plan (ESCMP)	110
9.	Environmental, Social Climate and Impacts Monitoring Plan	131
10.	Performances Monitoring/auditing	138
11.	Consultation with the Communities and Major Stakeholders	143
12.	ESCMF Implementation Process and Information Disclosure	147
12.1.	ESCMF Implementation process	147
12.2.	Information Disclosure	154
13.	Grievance Redressing Mechanisms (GRMs)	156
14.	ESCMF Implementation Arrangement	160
15.	Capacity Building	165

16.	Budget Estimated for the implementation of ESCMF _____	170
16.1.	Budget Estimate for Capacity Building _____	170
	Appendix _____	172
	Annex 1: Environment and Social Screening following IFAD SECAP _____	172
	Annex 2: Climate Risk Screening following IFAD SECAP _____	177
	Annex 3: List of Proposed project activities that are not eligible for Funding _____	179
	Annex 4: Environmental and Social Screening Checklist _____	180
	Annex 5: Suggested Environmental and Social Field Appraisal Form _____	192
	Annex 6: Guideline for the preparation of site specific ESCMP _____	195
	Annex 7: Suggested Environmental and Social Management Plan (ESCMP) Template for the proposed project activities _____	197
	Annex 8: Procedures for Chance Find of Physical Cultural Resources _____	199
	Annex 9: Guidelines for Annual Reviews _____	201
	Annex 10: Suggested Forms for ESCMF Reporting, Training and Follow-up _____	204
	Annex 11: Sample Terms of Reference (ToR) for ESIA Preparation _____	206
	Annex 12: Grievance Redress Mechanism _____	209
	Annex 13: Stakeholder's Database _____	211
	Annex 14: Issue and Response Table _____	212
	Annex 15: Grievance Resolution Form _____	213

List of tables

Table5. 1 Environmental Guidelines prepared by EPA	23
Table5. 2 Summery IFAD’s Environmental and Social Standard	35
Table 6. 1 Name, size and the corresponding coordinates of the national park within the regions	60
Table 7. 1 Positive Impacts	71
Table 7. 2 The positive role of PACT Program in Mitigation and adaption of Climate change	75
Table 7. 3 Level of environment related project Risks	76
Table 7. 4 PACT Project Related impacts, proposed mitigation measures, institution responsible for the implementation s and budget estimate for the mitigation measures	88
Table 8. 1 Environmental Social and Climate Management Plan	110
Table 9. 1 Environmental and Social Monitoring Plan	131
Table 15.1 Summary of institutions responsible for the implementation ESCMF	162
Table 15.2 Type and duration of trainings	167
Table 16. 1 Budget Estimated for capacity building in US Dollars	170

List of Figures

Figure 6. 1 Map Showing Project Regions	43
Figure 6. 2 Location map of National Parks of Ethiopia	59
Figure 14. 1 Institutional arrangement for the implementation of PACT Project	160

Executive Summary

Environmental and Climate management include a range of resilience-related measures, including increased soil moisture, carbon sequestration and soil fertility important for higher and less variable crop yields, improved water availability, and increased carbon sequestration all of which are high priorities for the Ethiopian government. Much progress has been made by the government and thousands of local communities are mobilized to address these challenges through proven investment packages financed by the IFAD. However, this work requires more innovation, more financing, more coordination, and much greater scale if the country is to meet its food deficit and resilience to climate change while achieving middle income status in less than 10 years as planned.

IFAD, together with other Development Partners (DPs) has been financing Ethiopia's Federal Ministry of Agriculture and Livestock Resource (MoALR) to implement Sustainable Land Management Program in five regional states of the Ethiopian highlands to transform the way landscapes are managed by providing resources to the project partners to invest in a holistic and coordinated fashion. This way water and food security is boosted. Degraded lands are brought back into production for local farmers. Dry season base flow of streams and depth to water table are improving and protective vegetation cover was either maintained or expanded, as verified by remote sensing. Similarly, IFAD financed and implemented the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) Project I and II in Ethiopia. PASDEP I has already been completed and PASDEP II is about to be completed in the next one year. The purpose of these projects is to Accelerated and Sustained Development to End Poverty in Ethiopia.

The Proposed PACT Program would build upon the implementation structure and enhance capacity. Both at national and regional level environmental, climate and social safeguard specialists will be recruited; the institutions and their staff at all levels of the government existing implementation structure, i.e. federal, regional, zone, woreda and kebele (sub-district) level will be capacitated ready to implement the PACT Project. Grievance redress mechanism (GRM) will be introduced at all levels of the project implementation.

PACT Project is planned to be implemented in the time span of seven years. It will build on the previous projects and introduces measures to address climate change/variability and to maximize Greenhouse Gas (GHG) emission reductions and improve the livelihoods of the vulnerable small holder farmers so as to meet the Growth and Transformation Plan (GTP), the Nationally Determined Contribution (NDC), National Adaptation Plan (NAP) and the Climate Resilient Green Economy (CRGE) goals while reducing land degradation and improving land productivity of small holder farmers. The project is planned to be implemented in 90 woredas in Oromia, Amhara, SNNPR, Somali and Sidama regions in the first phase and Tigray and Afar will be implemented in the second phase of the project. This framework is prepared for the second phase of the PACT Project.

The environmental and socioeconomic milieu of the intervention areas are characterized with significant

limitations of land productivity due to severe land and forest degradation, high agro-ecological variability and diverse farming systems, sedimentation to rivers, high population density and land fragmentation. This ESCMF Report is prepared to enhance the positive impacts; avoid and mitigate the negative environmental and social impacts that may arise from the implementation of sub-projects to be financed under PACT Project.

This ESCMF is prepared by collecting primary and secondary data as well as information compiled through extensive review of relevant project documents, proclamations and guidelines at the Federal and Regional levels, environmental policies, laws, regulations and by undertaking consultative discussions with project team members of the Project Coordination Unit (PCU) and other flagship programs and/or projects in the Ministry of Agriculture including those supported by IFAD. Consultations have also been made with experts at the federal Environmental Protection Authority and environmental and social regulatory experts of the regional environmental offices.. IFAD safeguards policies were also reviewed when preparing this ESCMF

PACT Project is structured under three interlinked components: Component 1: Community-Led Climate-Smart Productive Landscapes; Component 2: Inclusive Market Access and Component 3: Community, Institutional and Policy Strengthening.

Components 1 and 2 have range of activities including community access road rehabilitation, water harvesting structures, market facilities, irrigation schemes, restoration of degraded lands and gullies, most of which may involve manipulation of landscapes and resources, and or affect the use rights (tenure rights) of people and/or their access rights to resources. These activities may cause some unforeseen negative environmental and social impacts. These impacts may include biodiversity loss, natural habitat and cultural resources destruction, soil erosion and sedimentation, restriction of access to resources, flooding, involuntary loss of land and displacement of people, pollution, and prevalence of diseases. Project activities, particularly those in agriculture (introduction of high value crops and use of pesticides, introduction of new varieties of crops, new fruit tree species and varieties, high yielding varieties) may increase the use of agrochemicals (insecticides, herbicides, fertilizers). Detailed mitigation measures outlined in chapter 7 includes, inter alia, integrated crop pest management (following the WBG EHS guidelines), dissemination of climate-smart agro-ecological practices and technologies, including reduced and zero tillage as well as direct seeding and planting, to minimize damage to soil structure, conserve soil organic matter, and reduce soil erosion. Infringing on protected natural sites and critical habitats or areas with significant biodiversity will be avoided. As much as possible variety of multipurpose and fast-growing indigenous tree species will be used to avoid monoculture in afforestation /reforestation activities. Mitigation measures of the PACT Project include locating irrigation schemes where water supplies are adequate so that the scheme will not conflict with existing human, livestock, wildlife or aquatic water uses; preventing mosquito breeding in the project area, and employ suitable prevention and mitigation measures, such as for example selecting sites and orienting water works to ensure adequate natural drainage of surface water body.

Component 3 is focused on market linkages and capacity building and knowledge management, monitoring and evaluation, implementation of safeguard instruments and may not have any adverse environmental and social risks. The ESCMF is therefore prepared to manage and mitigate the negative impacts that will arise from the first and second project components.

The ESCMF outlines procedures to be followed during the screening of sub-projects against any potential environmental and social impacts. The PACT is a category B project, and the activities may have positive or negative effects on biophysical and social environment. The positive impacts will contribute in creating climate resilience on the landscape by rehabilitating degraded areas and increasing productivity thereby improving the livelihoods of the rural community and/or the vulnerable groups. At this stage of ESCMF preparation, the specific sites have not been known and it is not time to accurately define the scope and magnitude of impacts but is broadly discussed in the ESCMF. However, site specific and less sensitive localized environmental and social impacts (e.g., pollution from agrochemicals, erosion, biodiversity loss, salinity, habitat destruction) may occur in the project implementation areas.

PACT Project is anticipated to trigger eight of the of IFAD social safeguard policies namely **Standard 1:** Biodiversity conservation; **Standard 2:** Resource efficiency and pollution prevention; **Standard 3:** Cultural heritage; **Standard 4:** Indigenous peoples; **Standard 5:** Labor and working conditions; **Standard 6:** Community health and safety; **Standard 7:** Physical and economic resettlement and **Standard 9:** Climate change. However, **Standard 8** on financial intermediaries and direct investments will not be triggered by the PACT Project. These standards require adhering to appropriate environmental assessment procedures and steps to address all possible negative impacts.

In PACT Project the environmental, climate and social management process starts with the sub-project planning process during the identification of sub-projects by local communities based on their needs and priorities through a participatory watershed planning process guided by the Community Based Participatory Watershed Development Guidelines (CBPWDG), technical support from Development Agents (DAs) and Worde experts. The Development Agents (DAs) will screen/design/plan subprojects applying a simple checklist for fast-track eligibility checking of identified sub-projects. This is done in consultation with the communities and kebele development committee at the early stages of subproject selection and prioritization phase. Once the checklist is approved at the kebele level, the project design/plan will then be sent to the Woreda Agriculture Office and/or the Woreda Technical Committee. The Technical Committee, depending on the scale, nature and type of subproject, will further screen the sub-projects. The Woreda Focal Person (WFP), woreda implementing office, and regional project support unit will ensure and document such procedures are properly followed and a team led by experts from the Woreda Environmental regulatory body will review the screened subproject and the mitigation measures planned. If any design modifications are required, the environmental regulatory body passes recommendations and gives clearance and/or certificate of subprojects. The Woreda council will then approve plans based on the recommendations of the team. After approval, the plan document is referred to the regional Bureau of Agriculture (BoA) with all the accompanying

environmental and social screening documents/files.

If sub-projects of any significant environmental concerns having high and unknown impacts are identified, then the plan document will be directed to the attention of the Zonal or Regional Environmental regulatory body. The Zonal or regional environmental regulatory body will make decisions if an Environmental and Social Impact Assessment (ESIA) is required for those subprojects or not. Based on ESIA outcomes, Zonal or Regional environmental regulatory body will recommend modifying the design, preparing environmental and social management plan to mitigate negative impacts OR reject/disapprove the project.

The PACT Woreda Focal Persons will submit quarterly and annual performance reports to Bureau of Agriculture, regional project coordination Unit and the regional M&E specialist. The environmental and social safeguard specialists will consolidate the woreda reports and submit the quarter and annual performance reports to the National Project Management and Coordination Unit. Based on the regions report, the environmental and social safeguard specialists of the National Project Coordination and Management Unit will compile and prepare a report and submit to the development partners on quarterly and annual basis.

Monitoring of environmental and social safeguard performance of the project will be conducted regularly. Performance monitoring will ensure that safeguards instruments such as ESCMP and RFP are properly implemented. . While the implementation of ESCMP is done by the community at kebele level with the responsibility of the woreda implementing offices, performance monitoring will be done by the environmental and social safeguard specialists at national and regional level. The results of the monitoring involve the monitoring compliance and effectiveness of the safeguards instruments, and the overall environmental, socio-economic, and climate-related assessment of the Program's interventions. Monitoring will be done on an annual and quarter basis by the Regional Project Coordination Unit (RPCU) Specialists with support of Environmental and Social Safeguards Specialists, M&E Specialist and IFAD's Environmental Safeguards, Social Safeguards and Social Development team.

Quarterly and annual reviews workshops will be held at regional and national level with a view to enhance the positive performances and identify bottlenecks and gaps when implementing the ESCMF and proposing solutions in addressing the gaps. Environmental and social auditing will be done by carrying out field verification by independent consultants. Auditing will be conducted twice in the program life, i.e., during Mid Term Review (MTR and during completion period of the project.

The PACT Program will conduct a number of training and awareness creation at federal, regional, zonal, woreda, kebele and community level on ESCMF and other safeguard instruments. For successful implementation of the ESCMF, SA and RPF capacity building activities should be done in a systematic manner to have an environmentally sound and socially acceptable subproject that will address all the program beneficiaries. The capacity building activities will give due emphasis to woreda and kebele level experts, DAs and community members focusing on the different safeguard instruments and the IFAD safeguard policies.

Besides, awareness creation using different platforms will be provided to the communities at woreda and zonal level whereas technical assistance and backstopping support will be strengthened by federal, regional program coordination unit staffs and other stakeholders.

The budget for capacity building and trainings at federal and regional level, performance monitoring, environmental and social safeguard auditing, quarter review workshops and experience sharing, and technical backstopping and support is estimated to be 1,410,000 US\$ million USD for the coming seven years. Similarly, budget estimate for the implementation of the proposed mitigation measures and monitoring plan is 865,000 USD and 462000 USD respectively. The overall budget estimate for the implementation of the ESCMF is **2,737,500 USD**

1. Introduction and Background

1.1. Introduction

Participatory Agriculture and Climate Transformation (PACT) Program is a flagship program of the Ethiopian Ministry of Agriculture built on the first phases of the Participatory Small-Scale Irrigation Development Program. PACT will directly contribute to the objectives of Ethiopia 10-Year plan, Climate Resilient Green Economy (CRGE) strategy (CRGE 2011), Nationally Determined Contribution (NDC 2021) and National Adaptation Plan (NAP 2021) by enhancing agricultural productivity, climate adaptive capacity and market linkages and leveraging climate change mitigation mechanisms to build a more resilient and inclusive food system.

Climate Finance from the Green Climate Fund (GCF) for the Inclusive Green Financing Initiative (IGREENFIN) and from the Enhanced Adaptation for Smallholder Agriculture Programme (ASAP+) will be used to co-finance PACT. IGREENFIN will avail loans and grants to MFIs, Cooperatives etc. for them to engage in climate adaptation and resilience interventions. Thus, PACT/IGREENFIN alignment will assist to bring about a transformational impact on the target communities and ecosystems.

PACT will target the most vulnerable households and socio-economic groups in five regional states of the country. Based on key indicators of vulnerability such as food insecurity, climate sensitivity, poverty rate, unemployment, approximately 90 woreda are identified taking into consideration the vulnerability of the community and opportunities for irrigation, integration of value chains and administrative absorption capacities.

The PACT Program is said to enhance the agricultural food production systems in poor and underprivileged communities. Targeted woredas in the regions are identified. However, the specific beneficiary households and communities are not yet known at this stage. The activities of the PACT Program are expected to have number of sub-projects, hence an Environmental, Social and Climate Management Framework (ESCMF) has been prepared to identify the potential risks and document mitigation measures for any potential adverse impact on the sub projects and propose ways and means to avoid, minimize or mitigate them. The ESCMF also makes provisions for screening of sub-projects and guidance for further environmental assessment that will be required at a later stage during the formulation of the sub projects.

The ESCMF seeks to manage the environmental, climate and social risks of the PACT program and proposed mitigation measures. For the development of this framework, each of the components and activities included in the PACT program was analyzed considering measures, and practices that the program will use to improve resilience to climate change through the reduction of GHG emission potential or carbon balance and the water and carbon footprint of the prioritized agricultural activities. The existing environmental, social, and economic

conditions in the area where the program will be implemented will be assessed. In addition to the environmental, social, and institutional context elements, the document lays out an environmental and social management plan that defines the guidelines, procedures, and obligations for the responsible parties and strategic partners, which comply with the environmental, social, and gender standards, safeguards and policies of IFAD as well as with Ethiopian regulations and public policy.

For the development of this framework, each of the components and activities included in the PACT Project were analyzed considering, on the one hand, the measures, and practices that the project will use to improve resilience to climate change and reduce the water and carbon footprint of the prioritized agricultural activities, and, on the other hand, the existing environmental, social, and economic conditions in the territories where the project will be implemented. The incorporation and enforcement of these arrangements will minimize the potential adverse impacts of the project the environment, communities, and project beneficiaries. Furthermore, the ESCMF opts for an approach that also seeks to maximize the positive impacts and outcomes of the PACT project. Similarly, the project's information disclosure strategy and grievance redress mechanism seek to promote transparency and accountability among stakeholders.

The PACT program according to the Ethiopian EIS guideline is classified as a Category B and as substantial according IFAD risk rating.

The incorporation and enforcement of these arrangements will minimize the potential adverse impacts on the environment, communities, and project beneficiaries. Furthermore, the ESCMF opts for an approach that also seeks to maximize the positive impacts and outcomes of the PACT Program. Similarly, the program's information disclosure strategy and grievance redress mechanism seek to promote transparency and accountability among stakeholders.

The ESCMF document is organized in the following way:

- A description in the context of environmental, social and gender context of the program area.
- An evaluation of the environmental, social and climate management capacities of the communities proposed to participate in the program. This includes an analysis of i) the existence of rules and regulations, ii) inter-institutional relations, iii) internal coordination, iv) financial capacity, and v) monitoring mechanisms.
- The description of the environmental and social management plan, which sets out the Assumptions on which the ESCMF was developed, as well as the Framework's objectives. It also establishes the procedures for implementing the ESCMF, the institutional arrangements that will facilitate its administration, as well as s review and audit the performance of the Program.
- A definition of the mechanisms for disseminating information about the Program, its implementation and progress in meeting the goals, and its budget execution. It also includes guidelines for recording, reporting, and resolving incidents, requests, complaints, claims, suggestions that may arise during the Program implementation.

- A presentation of the indicators associated with the environmental, social, climate, and gender risks identified, as well as the monitoring mechanism for the proposed mitigation measures.
- The budget estimated for the implementation of the ESCMF, both for the execution of plans and strategies, as well as for the financing of the work team that will support the implementation of the program.

1.2. Objectives of the ESCMF

The ESCMF has the following objectives.

- To establish clear procedures and methodologies for the environmental, climate and social assessment, review, approval, and implementation of mitigating the potential environmental and social impacts of investments to be financed under the project.
- To specify appropriate roles and responsibilities of the different implementers and stakeholders and outline the necessary reporting procedures for managing and monitoring environmental and social concerns related to project investments.
- To determine the training and capacity building needs of the implementing institutions,
- To establish the budget required to implement the ESCMF requirement.
- To ensure that the implementation of the PACT of which the subproject sites are unknown at this stage, will be carried out in an environmentally and socially sustainable manner.

2. Study Methodology

The ESCMF has been prepared in accordance with applicable National safeguard policies and procedures and IFAD SECAP (2021). The information required to prepare the ESCMF used both primary and secondary sources. The methodologies adopted for the preparation of this ESCMF include literature review. Information obtained from Consultations with stakeholder institutions and the communities engaged and benefiting from the implementation of similar projects in these regions is also used in the development of the ESCMF.

Literature Review

Review on the existing baseline information and relevant literatures were undertaken to have better in sight of the PACT Program areas. Similarly, the national policies and legal framework and IFAD environmental, climate and social climate Assessment procedure (SECAP) were also reviewed.

Field visit

The PACT Program Design mission was fielded to the project regions to carry out consultation with the stakeholders and with the beneficiary communities of PASIDP II currently under implementation. The design mission met the relevant institutions and communities including woman and youth at the regional level. The design team during field visit was also able to understand the environmental and social settings of the proposed project area and identified opportunities and challenges that are expected to be encountered during PACT program implementation

Stakeholder Consultations

A series of stakeholder consultations have been carried out with key resource persons, beneficiaries, institutions at the national, regional, and community levels. During consultations the objectives of the PACT Program was explained by the design team for the stakeholders to understand the nature and scope of the program.

Consultation with the stakeholders and communities were facilitated by the IFAD Country Office staff and the experts from PASIDP II Office of the Ministry of Agriculture.

3. Description of PACT Project

The PACT Project's Development Objective will be achieved through the effective implementation of two technical components and a third component that will focus on augmenting the capacity of communities, institutions, and contributing to a conducive policy environment towards programme implementation. Job creation for young women and men including persons with disabilities will be a main focus of all investments in the project.

The PACT Project has three components and has also sub components under each of the components.

Component 1: Community-Led Climate-Smart Productive Landscapes:- Component 1 will support: a) community led equitable access and sustainable use of natural resources; b) participatory promotion of technological change for smallholder production systems for improved production and productivity of target crop and livestock commodities; c) improve inclusive and equitable adaptation to CC to reduce vulnerability to shocks; and d) improve nutrition. The outcome of this component will be enhanced conservation, productivity and sustainable utilization of water and other natural resources. The component will be implemented under three subcomponents.

Subcomponent 1.1: Integrated Natural Resources Management: Led by inclusive and empowered watershed committees, this subcomponent will invest in: a) rehabilitation of degraded lands; b) reforestation, Farmer-Managed Natural Regeneration (FMNR) and agro-forestry; c) adoption of improved cook stoves combining market led and community led approach and the promotion of solar-powered lighting in partnership with the Vita and support of Green Impact Fund for leveraging carbon finance and selling carbon credits will be explored. The Land Degradation Surveillance Framework (LDSF) data from the International Centre for Research in Agro-forestry (ICRAF) will be among sources used to identify intervention areas.

The sub-component will leverage the climate-gender-nutrition nexus (e.g., promotion of indigenous nutritious crops, fruit trees, and bee-keeping) and ensure women and youth will adequately benefit from enhanced landscape restoration and management by exploring gendered specific activities, including skill enhancement and promoting income-generating activities. Farmer field schools, inclusive of business curricula, will be used for forestry and agro-forestry activities. The component will also create green job to youth and women and empower women for leadership.

Subcomponent 1.2: Climate Resilient Water Development for Households, Crops and Livestock Use: Taking a landscape approach in Sub-component 1.1, this subcomponent will invest in: a) Solar-small-scale farmer-led irrigation-related infrastructure; b) multipurpose water infrastructure and protection; and c) rehabilitation of irrigation schemes damaged due to the conflict and natural disaster. Renewable energy sources for powering water acquisition will be promoted, especially conversion from diesel pumps. Irrigation enables smallholder farmers to produce crops all-year long, increasing availability and affordability of diverse foods on markets. The sub-component will apply a gender and youth lens to the development of water-related infrastructure, ensuring that gender and youth-specific challenges are addressed.

Under this sub component irrigation-related interventions will focus on: a) identification, studying, designing and construction of new or for rehabilitation small-scale irrigation, including in the lowlands; and b) improving the management of irrigation infrastructure and instalment of water saving technologies by introducing new management models that will include private sector to complement the activities of the Irrigation Water Users Associations (IWUAs), where feasible. The involvement of private sector in irrigation scheme management will be piloted, learning from the work by the International Finance Corporation (IFC) in Dollo Woreda, Somali Region for refugees and host communities. Potential partnership with the IFC and IFAD's own PSFP on developing and implementing private sector irrigation scheme management models will be explored during design to strengthen the sustainability of irrigation schemes. The Programme will support the development of about 25,000ha of climate resilient small-scale irrigation and farmer-led irrigation.

Subcomponent 1.3: Production and Productivity Improvement of Selected Food Commodities: Interventions under this subcomponent will address production-related constraints of target crops and livestock selected by women and men farmers. These may include fruits and vegetables (avocado, tomatoes, cabbage, onion, and bananas), wheat, potatoes, forage shoats and poultry. The proposed interventions, to be selected by region, are summarised as follows: a) access to improved seed; b) soil fertility/health management including up-scaling soil fertility technologies promoted through the Alliance for a Green Revolution in Africa (AGRA) grant; c) improved crop protection system including integrated pest management practices; d) improved irrigation water use management; e) improved household level production of sheep and goats (Shoats) and poultry for home consumption and marketing; f) improved production of forage and feed for livestock; g) strengthened research and extension linkages including community-led (e.g., Farmers Research and Extension Groups, Farmers Field Schools) and e-extension services for innovation dissemination; and h) improved mechanisation technologies - explore potential linkages with Hello tractor, a digital platform for accessing mechanisation services and (I) improved post-harvest management to reduce food loss and waste.

Under this sub component gender, youth and nutrition will be considered to make sure women and youth benefit from capacity building opportunities. Small-scale mechanisation will enable women to save time and be able to participate in more productive, economic and self-development activities and digital technologies will be promoted for smallholder farmers' production and marketing systems.

Component 2: Inclusive Market Access: The outcome of interventions under this component will be enhanced access to remunerative markets for small-scale women and men farmers in the project areas. Focus will be on linking smallholder women and men farmers to the private sector on a business-to-business linkage, which will strengthen the capacity of producer organisations and improve access to reliable remunerative markets. A market based and private sector led approach will be promoted for improved provision of services, increased private sector investments and building capacities for smallholder farmers and their organisations.

Subcomponent 2.1: Support to Agri-business Development: This subcomponent will seek to promote commercialisation where (young) women and men farmers will largely respond to/be guided by market signals

in crop production planning. Further, facilitating access to digital technologies shall attract young farmers to actively engage in agri-preneurship.

Sub-component 2.2: Inclusive Market Access Business to Business Linkages: Participation of the private sector, through partnerships or joint ventures, contract farming/out-grower scheme arrangements will be promoted. The supply of produce to existing integrated agro-industrial parks may be prioritised during the selection of small-scale enterprises to be supported, following a market assessment with the private sector entity. The project will develop a digital based market information system/platform using a value chain approach for the selected commodities that will help inform women and men farmers and buyers of market information. The digital market platform will ensure inclusivity and literacy levels are accounted for through backward and forward compatibility of smart phone and feature phone enabled SMS/USSD and IVR (Interactive Voice Response) based services. The design will explore opportunities to support and build capacities of producer cooperatives/unions in coordinated production and foster market access alliances to link with off-takers, to reduce transaction costs and supply risks based on lessons from PASIDP II. Farmers will be assisted to prepare business plans to enable these partnerships. Special attention will be given to nutrient-dense foods as a pull approach to increase food production for markets and farmers' homes.

Subcomponent 2.3: Local Climate resilient, Market-Related Infrastructure: The emphasis of interventions under this subcomponent will be on addressing market infrastructure-related constraints faced by relevant actors operating within target value chains, that were largely absent in PASIDP II. Planned interventions will also include supporting rural infrastructure investments that can add market and nutritional value at the location, guarantee food safety, extend shelf life, upgrade performance of enterprises and support associated agricultural producers, including women, to become competitive, sustainable commercial businesses in an environmentally friendly manner. Infrastructure will be prioritized according to business plans, linkages along the value chain and social impact potential. Infrastructure may include market sheds, storage facilities for farmer's organizations, renovation/improvement of last mile rural access roads, among others. Farmers' organisations capacities will be strengthened to manage and maintain infrastructure. A nutrition lens will be applied, leveraging post-harvest practices and infrastructure to preserve and enhance nutritional quality of the foods produced. Further, the component will prioritise investments that foster job creation for youth and women.

Component 3: Community, Institutional and Policy Strengthening: This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and inclusive functioning of the target value chains, from production to consumption. The component comprises three subcomponents.

Subcomponent 3.1: Social and Community Empowerment: Interventions under this subcomponent will largely focus on coordination and focused awareness creation across all levels, of gender transformative approaches, youth and nutrition interventions in a manner that ensures effectiveness and sustainability.

Gender transformative approaches, focussing on young women, will: (i) address the underlying social norms, attitudes and behaviours that perpetuate gender inequalities, (ii) use participatory approaches to facilitate dialogue, trust, ownership, visioning and behaviour change at various levels , (iii) promote critical reflection on deep-rooted social and gender norms and attitudes in order to challenge power dynamics and bring about a paradigm shift at all levels, (iv) explicitly engage with men and boys to address the concepts of masculinity and gender, (v) engage with influential smallholders. This sub component will also address the following areas of gender inequality: (i) gender-balanced staffing at institutional and project levels, (ii) up skilling staff and implementing partners on gender and social inclusion issues at all levels, (iii) Gender responsive budgeting, (iv) unequal workloads between women and men, especially regarding unpaid care and domestic work, (v) women's lack of voice in household decision-making, (vi) women's unequal access to, and ownership of, resources, (vii) gender-based violence (GBV) and other aspects of well-being; and (viii) women's unequal participation in organizations, both as members and leaders.

The project under this subcomponent will identify suitable employment opportunities and income generating activities for youth across the project components.

Subcomponent 3.2: Institutional Strengthening and Policy Support: The subcomponent will have a dual focus: institutional strengthening and policy support.

Institutional Strengthening – With regard to institutional strengthening, the aim is to augment the capacity of the institutions (public and private sector/farmer-owned) that will be responsible for overseeing and/or implementing the different Programme activities. However, to ensure relevance, capacity building interventions will be premised on a capacity and systems needs assessment, which will detail specific capacity and systems gaps at the national, regional and woreda levels of government.

Policy Support: The focus of this intervention will be to facilitate the development, review and update of policies and strategies in areas identified as game changing solutions for the Ethiopia's Food System Transformation roadmap, including for gender equality and youth to thrive in agriculture.

Subcomponent 3.3: Programme Coordination and Implementation Support Services: This sub-component's objective will be to manage the Programme in an efficient and effective manner by providing overall coordination, including planning and implementation, financial management and control, procurement support, Monitoring and Evaluation, knowledge management, and progress reporting. It will also ensure liaison and linkage with all other relevant projects/programmes being implemented in the country that seek to address similar or related constraints; this would be aimed at taking advantage of existent synergies and avoiding duplications.

4. Rationale for the Landscape Approach

Climate-smart agriculture provides opportunities, but also presents considerable challenges. To seize these opportunities and meet these challenges, it is necessary to adopt a holistic, integrated approach to capacity development in which all stakeholders participate actively and gain a sense of ownership over the activities. An integrated approach, which encompasses the socio-economic, agro-ecological and policy dimensions, ensures greater efficiency in the use of resources and more sustainable management of natural processes and human activities in the landscape. Production systems need to capitalize on natural biological processes and recycle waste and residues. It is also important to create integrated and diversified farming systems that can generate a range of goods and services at the landscape level.

Reversing trends in environmental degradation involves the use of landscape approaches to address climate change. It has often been demonstrated that the best approach to achieve the objectives of climate-smart agriculture is to broaden the agricultural management practices from single farming unit to the management of the entire landscape by multiple stakeholders (e.g. decision-makers, farmers, industrial groups). An example of this is the integration of trees into pastures, with the support of community-based forest management and planning and the collaboration of local authorities, to establish integrated production systems.

In the landscape approach a thorough analysis of the pressures and demands on natural resources and ecosystems, the biophysical and socio-economic impacts of climate change, and the opportunities and the constraints that land users face to adapting to change and threats demand of applying landscape approaches in interventions to support climate change adaptation and mitigation is needed . This analysis must be undertaken in coordination with all stakeholders in the landscape.

Land degradation is reflected in the loss of fertile soils, the erosion of biodiversity and a reduction in carbon stocks, threatens the livelihoods and well-being, the food, water and energy security, and the resilience of millions of people. Land degradation is both a cause and a consequence of climate change. Ecosystem degradation and climate change form a 'negative feedback loop' that increases greenhouse gases emissions from agricultural production. The loss and degradation of soil and vegetation significantly reduces the capacity of soils to act as a 'carbon sink'. These negative loops affect agriculture production and livelihoods at all levels. Climate-smart energy solutions are also a priority objective for preserving natural resources and preventing the degradation of the natural environment.

5. Relevant Environmental Policy, Legal and Institutional Framework

5.1. National Level Framework

The effects of the proposed Program on the environment should be assessed in order to ensure that the PACT Program is in harmony with the natural and socio-economic environment and also ensure sustainability of the resulting development. The following section will review the national policies, legislative frameworks, guidelines, and standards relevant to the proposed Program.

5.1.1. The Constitution

The Constitution of the Federal Democratic Republic of Ethiopia was issued in August 1995 with several provisions, which provides basic and comprehensive principles and guidelines for environmental protection, and management in the country. Articles and environmental provisions of the constitution relevant to the proposed program are the following:

Article 35- Rights of Women

The historical legacy of inequality and discrimination suffered by women in Ethiopia considered, women, to remedy this legacy, are entitled to affirmative measures. The purpose of such measures shall be to provide special attention to women to enable them to compete and participate based on equality with men in political, social, and economic life as well as in public and private institutions.

Women have the right to full consultation in the formulation of national development policies, the designing and execution of projects, and particularly in the case of projects affecting the interests of women.

Women have the right to acquire, administer, control, use and transfer property. They have equal rights with men with respect to use, transfer, administration, and control of land. They shall also enjoy equal treatment in the inheritance of property and women shall have a right to equality in employment, promotion, pay, and the transfer of pension entitlements.

Article 40-The Right to Property

The right to ownership of rural and urban land, as well as of all natural resources, is exclusively vested to the State and in the peoples of Ethiopia. Land is a common property of the Nations, Nationalities and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange.

Article 43- The Right to Development

The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia have the right to improved living standards and to sustainable development and Nationals have the right to participate in national development and to be consulted with respect to policies and projects affecting their community.

Article 44- Environmental Rights

All persons have the right to a clean and healthy environment and all persons who have been displaced or whose livelihoods have been adversely affected as a result of State programs have the right to commensurate monetary or alternative means of compensation, including relocation with adequate State assistance.

Article 91 Social Objectives

To the extent the country's resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security and education shall be provided in a manner that is free from any religious influence, political partisanship or cultural prejudices.

Article 92- Environmental Objectives

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

5.1.2. Relevant Environmental Policies

The following policies are relevant since it will give policy guidance to prevent or mitigate environmental impacts of PACT that may arise due to Program implementation.

Environmental Policy of Ethiopia

The first comprehensive statement of Environmental Policy of Ethiopia (EPE) was approved by the Council of Ministers in April 1997 that was based on the policy and strategic findings and recommendations of the Conservation Strategy of Ethiopia. The policy is aimed at guiding sustainable social and economic development of the country through the conservation and sustainable utilization of the natural, man-made and cultural resources and the environment at large. The overall policy goal is to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so

as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

The specific Policy objectives seek to, among others:

Ensure that the benefits from the exploitation of non-renewable resources are extended as far into the future as can be managed and minimize the negative impacts of their exploitation on the use and management of other natural resources and the environment.

Incorporate the full economic, social, and environmental costs and benefits of natural resource development into the planning, implementation, and accounting processes by a comprehensive valuation of the environment and the services it provides, and by considering the social and environmental costs and benefits which cannot currently be measured in monetary terms.

Prevent the pollution of land, air, and water in the most cost-effective way so that the cost of effective preventive intervention would not exceed the benefits.

Conserve, develop, sustainably manage, and support Ethiopia's rich and diverse cultural heritage. Raise public awareness and promote understanding of the essential linkages between environment and development.

National Health Policy

Ethiopia has a low level of health coverage even in comparison with other Sub-Saharan countries. This is largely related to low levels of income and widespread poverty, low levels of education, nutritional deficiencies, poor environmental conditions, and inadequate access to health services. The Government has therefore assigned a very high priority to significantly improve health care and, in 1998, issued a health policy

The Government of Ethiopia has in 1998 issued the national health policy based on the following main principles:

Promotion of disease preventive components.

Ensuring accessibility to health care for the whole population.

Development of appropriate capacity based on needs assessment.

Promotion of private sector and NGO participation in the provision of health care.

Promotion of inter-sect oral activities through a national self-reliance program.

Democratization and decentralization of the health care system.

Health Sector Development Plans and Strategies have been designed to implement the stated health principles within a defined period. The strategies include raising the awareness of personal and environmental health care and sanitation through information, education, and communication (IEC) to control disease and promotion of primary health care through community participation.

HIV/AIDS Policy

The new policy came into force in January 2012 and will be applied across the board in state and private organizations. It is expected to protect job seekers from mandatory HIV tests, while facilitating voluntary counseling and testing and defending the right of employees living with HIV to medical leave or job re-allocation. It also provides guidelines for the establishment of an AIDS fund to help employees cope with living with the virus. The Policy stipulates that employer will make the necessary investments to ensure universal precautions in workplaces to protect employees from HIV infection and are also expected to put in place a post-exposure prophylaxis system for their workforce.

National Social Protection Policy of Ethiopia

The main objectives of Social Protection Policy of Ethiopia are the following:

Protect poor and vulnerable individuals, households, and communities from the adverse effects of shocks and destitution.

Increase the scope of social insurance.

Increase access to equitable and quality health, education, and social welfare services to build human capital thus breaking the intergenerational transmission of poverty.

Guarantee a minimum level of employment for the long term unemployed and under-employed.

Enhance the social status and progressively realize the social and economic rights of the excluded and marginalized. and,

Ensure the different levels of society are taking appropriate responsibility for the implementation of social protection policy.

National Policy on Women

In 1993, the government introduced the National Policy on Women (NPW) for Ethiopia. Among the major objectives of the NPW are creating conducive environments to ensure equality between men and women so that women can participate in the political, social, and economic decisions of their country, and facilitating the necessary condition for rural women to have access to basic social services. The policy is also intended to create the appropriate structures within the government offices to establish and monitor the implementation of

different gender-sensitive and equitable public policies. Following the policy recommendation of creating an appropriate government structure at the various tiers of government, there are now ministries/bureaus/offices of women's affairs. At the federal level, one of the duties and responsibilities of the ministry for women, youth and children affairs is conducting and monitoring women's affairs activities at the national level and creating an environment for the implementation of the NPW in different sectors. At regional, zonal, Worde, and Kebele levels, there are respective offices (at Kebele level, usually individuals are assigned in lieu of an office). On the other hand, those situated in line sectors/ministries are mandated to identify issues of gender gaps and develop strategies to address inequalities in the respective line ministries and their sub-sectors. The Women's Affairs Offices are formally accountable to their respective councils, many of which have women's affairs or social affairs committee that are engaged in oversight activities. The plans included steps to enhance rural women's access to and control over productive resources like land.

Labor Policy

The Constitution of Ethiopia contains a full chapter (Chapter 3) on fundamental rights and freedoms. The fundamental rights have been grouped under the headings, "Human Rights" and "Democratic Rights". The Constitution guarantees rights and freedoms, inter alia equality before the law, equal protection under the law, freedom of speech and expression, freedom of religion, belief and opinion, freedom of assembly and association, freedom of person, freedom against jeopardy and ex post facto laws, the right to property.

Among these fundamental rights, a whole range of general principles of labor rights are firmly anchored in the constitution. The constitution provides for principles such as the right of the security of the person (Article 16 of the Constitution), the prohibition against inhuman treatment and the abolishment of slavery and servitude (Article 18 (2)) and forced and compulsory labor (Article 18 (3) and (4) of the Constitution). General Freedom of Association is laid down in the Constitution (Article 31, "for any cause or purpose"), and specified in Article 42, "Rights of Labor", which reads: "Factory and service sector employees, peasants, agricultural workers, other rural workers, government employees below a certain level of responsibility and the nature of whose employment so requires, shall have the right to form associations for the purpose of improving their economic and employment conditions. This right shall include the right to form trade union and other associations and to negotiate with their employers and other organizations affecting their interests". The Right to Strike is explicitly mentioned in Article 42 (1) b) of the Constitution. This article, in its paragraph 2, also lays down the right to reasonable limitation of working hours, to rest, to paid leave and to healthy and safe working environment.

Article 35 of the Constitution deals with the rights of women, such as equality with men (Article 35(1)), in employment, promotion, pay and the transfer of pension entitlements (Article 35(7), and 42 (1) d)). The Constitution grants the right to maternity leave with full pay, as well as prenatal leave with full pay, in accordance with the provisions of the law (Article 35(4) a) and b)).

Pursuant to Article 36 on the rights of children, “every child has the right not to be subject to exploitative practices, neither to be required nor permitted to perform work which may be hazardous or harmful to his or her education, health or well-being”.

Pastoral Policy

The 1995 constitution is the first to incorporate the issues of pastoralists for the first time in the country. It also formed a department in the ministry of federal affairs which coordinates and facilitates development in pastoral areas and set up Pastoralist Affairs Standing Committee in the parliament which oversees pastoral development activities in the country. Regional offices in charge of pastoral development have been established in regions where pastoralism is an important production system. Different from the previous two regimes the current government has attempted to incorporate pastoral development in its national development plans (2000-2004 and 2005-2009 five-year plans). Despite lack of clarity as to what will be the future of pastoralist, the government set a national policy and strategies to direct development efforts in the pastoral areas of Ethiopia. It has made a stride in considering the need to develop the pastoral area and to give some development direction that triggers improvement of the livelihood of pastoralists. It also has made certain shift in the thinking of pastoral development from its predecessors (Desta, 2002). It looks like it has made a departure from its predecessors in a sense that it is focusing more on the poor livestock holders (i.e., pastoralists) and poverty reduction than the livestock themselves. However, there is still a need to do more to bring pastoralists themselves to participate in the policy making processes that affect their livelihoods. The 1995 Ethiopian Constitution provided for pastoralists the right to free land grazing and not to be displaced from their own lands without their wish. The constitution also provides pastoralists to receive fair prices for their products that would lead to improvement in their conditions of life. These are some of the articles in the constitution which specifically reflect the position of the government regarding pastoralist interest. In its short-medium development policy the government admits the importance of investing in pastoralism to improve the food security situation of pastoralists. It also acknowledges the usefulness of the traditional pastoral knowledge to manage pastoral resources. However, in its long-term policy it advocates for settlement of pastoralists based on development of irrigation. There is a need for more and open dialogue among the policy makers, development facilitators, researchers, pastoral advocacy groups and the pastoral community to bring to the surface implications and appropriateness of the government long term policy of pastoral settlement.

Ethiopian Water Resources Management Policy

The overall goal of the Ethiopian Water Sector Policy is to enhance and promote all national efforts towards the efficient, equitable and optimum utilization of the available water resources of Ethiopia for significant socio-economic development on sustainable basis. The objectives of Water Resources Policy are the following:

- Development of the water resources of the country for economic and social benefits of the people, on equitable and sustainable basis;
- Allocation and apportionment of water based on comprehensive and integrated plans and optimum allocation principles that incorporate efficiency of use, equity of access, and sustainability of the resource;
- Managing and combating drought as well as other associated slow on-set disasters through, inter-alia, efficient allocation, redistribution, transfer, storage, and efficient use of water resources;
- Combating and regulating floods through sustainable mitigation, prevention, rehabilitation, and other practical measures and, Conserving, protecting, and enhancing water resources and the overall aquatic environment on sustainable basis.

These are some of the articles in the constitution which specifically reflect the position of the government regarding pastoralist interest. In its short-medium development policy the government admits the importance of investing in pastoralism to improve the food security situation of pastoralists. It also acknowledges the usefulness of the traditional pastoral knowledge to manage pastoral resources. However, in its long-term policy it advocates for settlement of pastoralists based on development of irrigation. There is a need for more and open dialogue among the policy makers, development facilitators, researchers, pastoral advocacy groups and the pastoral community to bring to the surface implications and appropriateness of the government long term policy of pastoral settlement.

Land Tenure Policy

The Constitution of the Federal Democratic Republic of Ethiopia (FDRE) states that the right to ownership of rural and urban land, as well as all natural resources, is exclusively vested in the State and People of Ethiopia. Article 40 of the Constitution indicates that land is a common property of the Nations, Nationalities, and the People of Ethiopia, and shall not be subjected to sale or to other means of transfer.

The Land Tenure Policy of Ethiopia strongly supports the principle that project plans must include attractive and sustainable resettlement strategies to the people who are going to be displaced because of the development plan, and they have to be fully convinced, compensated and have been able to participate in all phases of the project implementation.

National Biodiversity Policy

The National Biodiversity Policy (NBP) was established in 1998 based on a holistic ecosystem approach to conserve, develop and utilize the country's biodiversity resources. One of the objectives of the biodiversity policy is to integrate biodiversity conservation and development into Federal and Regional agricultural, health, industrial and overall national economic development strategies, and plans.

Wildlife Policy

The main policy that addresses wildlife conservation is the Wildlife Policy and Strategy of 2005 (WPS). This policy emphasizes development-oriented conservation. The main objective of the WPS is to create a conducive environment whereby the country's wildlife and their habitats are protected and developed in a sustainable manner, and to enable the sector to play an important role in the economic development of the country.

The WPS aims to protect wildlife through proper administration of wildlife protected areas, conservation of endemic and threatened species, and prevention of disasters and promotion of wildlife health services. The WPS also seeks to establish proper systems to control trafficking in wildlife and wildlife products. Some of the strategies to stop trafficking include establishing check points at entry and exit points and regulation of national and international trade in wildlife and wildlife products in accordance with national and international conventions.

The WPS also seeks to promote sustainable wildlife utilization. The Policy states that the wildlife resources of the country will be properly utilized for sustainable tourism, hunting, trade, ranching and food. Eco-tourism will also be promoted in protected areas and international conventions regarding wildlife and wildlife trade will be implemented. The income secured from wildlife resources will be used to benefit local people and will be reinvested in wildlife conservation endeavors. The income from wildlife will also be used to enhance the overall growth of the national economy.

The WPS further anticipates expanding the wildlife sector by encouraging investors to participate in the conservation of wildlife. It hopes to strengthen research in wildlife to protect and develop wildlife and their habitats. Efforts will be made to develop and implement indigenous wildlife conservation experiences and knowledge in a bid to expand the wildlife sector.

The WPS is to be implemented both at the Federal and Regional levels. The Policy provides that regional states can prepare their own wildlife policies and strategies using the WPS as the basis. Further, the relevant line ministry will put in place the necessary infrastructure to ensure implementation of the wildlife conservation policy and strategy and it will formulate programs.

5.1.3. National proclamations and régulations

Environnemental Impact Assessment Proclamation, Proclamation No 299/2002

This proclamation establishes the requirement of an EIA procedure for all projects, and clearly describes the procedures to be followed by project proponents with respect to EIAs. The EIA process described in the proclamation underscores the presence of consultation requirements where reports are to be made public, and the comments of the public (especially of the project affected people) are to be solicited and taken into consideration in the review process undertaken by the federal or regional environmental agency in charge of

the project. On top of this, the proclamation makes EIA mandatory for specified categories of activities undertaken either by the public or private sectors, or possibly, for the extension of EIA to policies, plans and programs in addition to projects. The proponent of the project (whether it is public or private body) must prepare an EIA following the requirements specified in the legislation (article 8) and associated guidelines. The MoEPA (now restructured and reorganized as FEPA) or the sector Ministries delegated by it and relevant Regional Environmental Agencies will then review the EIA and either approve the project (with or without conditions) or reject it.

The Proclamation on Environmental impact assessment requires, among other things:

Specified categories of projects to be subjected to an EIA and receive an authorization from the EPA or the relevant regional environmental agency prior to commencing implementation of the project;

Licensing agencies to ensure that the requisite authorization has been duly received prior to issuing an investment permit, a trade or operating license or a work permit to a business organization;

EPA or the relevant regional environmental agencies may issue an exemption from carrying out an EIA in projects supposed to have an insignificant environmental impact. A licensing agency may suspend or cancel a license that has already been issued where the EPA change, or the relevant regional environmental agency suspends or cancels environmental authorization. Procedures that need to be followed in the process of conducting an EIA are described in the Proclamation and further elaborated in the draft EIA procedural guideline issued in 2003 E.C. Thus, a project developer is expected to undertake a timely EIA, identifying the likely adverse impacts, and incorporating the means of their prevention.

To put this Proclamation into effect the EPA has issued an EIA Directive (Directive no.1/2008) and other draft procedural guideline documents, which provide details of the EIA process and its requirements.

Based on the Federal EIA Proclamation No 299/2002, many of the regional states have prepared and put in force their own EIA proclamations and regulations. Some of these regional EIA regulations put stricter rules on the project proponents and EIA practitioners to facilitate for the preparation of EIAs with dependable and sufficient information that would enable sound decision making.

Environnemental Pollution Control, Proclamation No 300/2002

The Environmental Pollution Control Proclamation No 300/2002 primarily aims to ensure the right of citizens to a healthy environment and to impose obligations to protect the environment of the country from pollution. The proclamation is based on the principle that each citizen has the right to have a right for healthy environment on one hand and the obligation to protect the environment of the country on the other. The law addresses the management of hazardous waste, municipal waste, and the establishment of environmental quality standards for air, water and soil and monitoring of pollution. The proclamation also addresses noise and vibration as

sources of environmental pollution and it seeks for standards and limits for it, providing for the maximum allowable noise level considering the settlement patterns. In general, the Proclamation provides a basis from which the relevant environmental standards applicable to Ethiopia can be developed, while sanctioning violation of these standards as criminally punishable offences.

Furthermore, it empowers the EPA and/or the Regional Environmental Authority to assign environmental inspectors with the duties and responsibilities of controlling environmental pollution. To ensure implementation of environmental standards and related requirements, inspectors belonging to the EPA, or the relevant regional environmental agency are empowered by the Proclamation to enter, without prior notice or court order, any land or premises at any time, at their discretion. Such wide powers, emanating from the proclamation, are given to environmental inspectors with a clear intention to protect the environment from pollution, to safeguard and ensure wellbeing of human health as well as to maintain the biota and the aesthetic value of nature.

Public Health Proclamation No 200/2000

Various aspects of public health issues including water quality control, waste handling and disposal, availability of toilet facilities and others are clearly addressed in the public health proclamation. This proclamation critically prohibits discharging untreated liquid waste generated from septic tanks, seepage pits, and industries into water bodies, or water convergences.

Forest Development, Conservation and Utilization Proclamation No. 1065/2018

This Proclamation makes provision with respect to the development, conservation, and sustainable utilization of forest resources in Ethiopia. It concerns both private and public forests. It defines the powers and duties of in respect of forestry management and conservation, any regional governmental executive organ that is responsible to implement forest development, conservation and utilization. There shall be the following types of forest ownership: 1/ Private Forest or 2/ Community Forest or 3/ Association Forest 4/ State Forest. Obligations and rights of Private Forest Developers, Community Forest Developers and Associations of Forest Developers are defined. "Association forest" means a forest developed, conserved, utilized, and administered by associations established to develop a forest. The private developer and community developer shall, among other things, observe the laws issued in respect of environmental safety, watershed and bio-diversity conservation, development, and utilization, shall use the acquired forest land only for the intended purpose, and shall respect the important local culture, custom and knowledge. Community Forest Developers shall have priority, as appropriate, in benefitting from the forest's concession given by the government.

They shall share any benefits generated from the forest development as per the community by-laws. Associations of forest developers will have the same rights and incentives as private forest developers. State forests shall be classified as follows: 1/ productive forest 2/ protected forest 3/ preserved forest. The

Proclamation defines the responsibilities with respect each of these types of forests. Preserved forest shall be protected from any human and domestic animals' intervention except for the purpose of research, education, and disaster prevention. The Ministry shall, among other things, ensure the implementation of this Proclamation in collaboration with the responsible regional sector develop a system in order to determine benefit sharing right of forest products, develop an early warning, prevention and control mechanism to prevent the occurrence of damage to forest resources and, upon the occurrence of damage, to take emergency measures by coordinating regional and other relevant bodies, and enhance watershed-based forest development. Notwithstanding the power of each regional state to administer its forest resource in accordance with this Proclamation, the Federal Government may take over and administer, in cases where: a) The forest could not be properly developed and conserved jointly by neighboring regional states. b) It becomes necessary to administer the forest or forest land by the federal government because of its national, regional and international significance. The management of the forest shall be in a manner to generate revenues from eco-tourism, carbon trade and other related eco-system services.

Executive organs of the Regional States shall administer any forest land and state forest found in the regional state. Supervise and support the development, conservation, and administration of private and community forests in line with this Proclamation. They shall also, among other things, regularly monitor and evaluate whether forest developers given land on which to develop forests have used the land for the intended purpose and whether the use of the land is in accordance with the agreed forest management plan and "provide ownership for forest development based on watershed through community participation". The Government shall be instrumental in the conservation of forest resources and expansion of the trade in forest products and markets. The government may demarcate a forest or forest land for the purpose of carbon trade. The Government shall formulate forest development, conservation and utilization plans to allow the participation of the local community in the development and conservation and in the sharing of benefits from the development of state forests. The government shall also ensure the enhancement of urban forests. The Government, to introduce agro-forestry practices among the farming, semi-pastoral and pastoral communities, shall provide them with enough plant seeds and seedlings of tree species that could have different economic benefits.

Expropriation of Landholdings for Public Purposes Proclamation No. 1161/2019

The Expropriation of Landholdings for Public Purposes Proclamation No. 1161/2019 has repealed proclamation No. 455/2005 and is applicable throughout the country in rural and urban centers on matters relating to land expropriation, payment of compensation and resettlement of landholders whose land is expropriated for public purpose. The Proclamation provides responsibilities of landholder with respect to handing over of the land that is subject to expropriation order. The land requesting body, on the other hand, is required to submit to the city or Worde administration decision (of expropriation) that shows the size and the exact location of the land to be expropriated at least one year before the commencement of the project and pay

the money required for compensation and resettlement (as applicable) to the City or Worde administration. Handover of land takes over only after payments are made to the landholders.

Landholders whose landholdings are expropriated are entitled for property compensation and displacement compensation. Property compensation is a compensation paid for the property on the land and permanent improvement made on the land. In case of rural landholdings, displacement compensation constitutes substitute land where available and compensation for income.

Payment of Compensation Regulation No 135/2007

The regulation is all about the payment of compensation for property situated on land holdings expropriated for public purposes. It is issued by the Council of Ministers for the purpose of not only paying compensation but also to assist displaced persons to restore their livelihood. It narrates clear procedures for implementation of proclamation No 455/2005, for compensation payment for property situated on expropriated land for public benefit.

Provisions related to Gender Based Violence (GBV)

Gender Based Violence is among the major challenges to human dignity and is a violation of women's rights as human beings. This necessitated the international community to come up with legal instruments to address the problem that are coherent with the Universal Declaration of Human Rights. The major legal instruments and strategies which recognized and addressed GBV are Convention on Elimination of All Forms of Discrimination against Women (CEDAW), Declaration on the Elimination of Violence against Women (DEVAW), Beijing Declaration and Platform for Action, and the SDGs Goal 5.

In line with the international legal instruments, the Ethiopian Constitution, which is the supreme law of the land, devotes over a quarter of its provisions to human rights in which women and children's rights are guaranteed. The Criminal Code of Ethiopia also hosts several provisions, which criminalize GBV and its different forms. Article 561 to 570 criminalizes harmful traditional practices, including domestic violence (564), and female circumcision (565, 566). On the other hand, the Ethiopian Criminal Codes do not adequately address SH. Until now, victims have no legal recourse to redress either the short or long-term consequences of the acts perpetrated against them which leave sexual harassment, go unreported. Positively, Proclamation No. 1064/2017 (2017) on federal civil not servants and the new labor proclamation no. 1161/2019 provides for the prohibition of sexual harassment.

Proclamation on Cultural Heritage Proclamation No. 209/2000

Cultural or archaeological heritage may be damaged or lost during excavations and ensuing public work activities. In addition, chance finds of cultural heritage during excavations would be at risk of loss, unless due measures are taken to protect and save this heritage. According to Article 41 of Proclamation No. 209/2000

on research and conservation of cultural heritage the measures that should be taken during chance finding of heritages (i.e. Fortuitous Discovery of Cultural Heritage) are the following:

Any person who discovers any Cultural Heritage during an excavation connected to mining explorations, building works, road construction or other similar activities or during any other fortuitous event, shall forthwith report same to the Authority, and shall protect and keep same intact, until the Authority takes delivery thereof.

'The Authority' shall, upon receipt of a report submitted pursuant to Sub-Article (I) hereof, take all appropriate measures to examine, take delivery of, and register the Cultural Heritage so discovered.

Where the Authority fails to take appropriate measures within five months in accordance with Sub- Article (2) of this Article, the 'person who has discovered the Cultural Heritage may be released from his responsibility by submitting, a written, notification with a full description of the situation to the regional government official.

The Authority shall ensure that the appropriate reward is granted to the person who has handed over a Cultural Heritage discovered fortuitously in accordance with sub-Articles (I) and (2) of this Article such person shall be entitled to reimbursement of expenses, if any, incurred while discharging his duties under this Article.

5.1.4. Environmental Management Guidelines

The EPA has issued some guidelines and standards which are endorsed by the National Environmental Council. The purpose of these guidelines and directives is to ensure that development projects integrate environmental considerations in the planning process as a precondition for their approval. These include Directive No.1/2008, which was issued to determine projects subject to an EIA. According to this directive, the EIA Proclamation is to be applied to the types of projects listed under the directive. The types of projects subject to EIA in the urban sector include roads, solid waste facilities, WSS projects and any other project planned to be implemented in or near areas designated as protected. In a similar manner it is indicated that the National Environmental Council has endorsed certain effluent standards for specified industrial sectors. The endorsed effluent standards for the specified 12 industrial sectors are posted on the official website of the EPA but are not officially published in the same way as directive no.1/2008. As a result, these are widely considered as draft effluent standards for Ethiopia.

The following three draft environmental guidelines are prepared by EPA and being used with intention of protecting the general environment along with implementation of any developmental activities.

The following three draft environmental guidelines are prepared by EPA and being used with intention of protecting the general environment along with implementation of any developmental activities (see Table 5.1):

Table 5. 1 Environmental Guidelines prepared by EPA

EIA Procedural Guideline (draft), November 2003	<p>Outlines the screening, review and approval process for development projects in Ethiopia and defines the criteria for undertaking an EIA. According to this EIA procedural guideline, projects are categorized into three schedules:</p> <p>Schedule 1:- This category includes projects that may have adverse and significant environmental impacts thus requiring a full EIA study.</p> <p>Schedule 2: - Projects whose type, scale or other relevant characteristics have potential to cause some significant environmental impacts but are not likely to warrant a full EIA study fall under this group.</p> <p>Schedule 3:- Projects which would have no impact and do not require an EIA.</p> <p>However, projects situated in an environmentally sensitive areas such as land prone to erosion. desertification. areas of historic or archaeological interest. important landscape. religiously important area, etc. will fall under Schedule I irrespective of the nature of the project.</p>
Guideline for Environmental and Social Management Plan (draft), May 2004	<p>Outlines the fundamental contents that need to be featured while preparing an ESCMP for proposed development projects in Ethiopia and provides template forms to be used for such purposes. The guideline also provides guidance on the preparation of institutional arrangements for implementation of ESCMPs.</p>
EIA Guideline, May 2000	<p>The EIA guideline document provides essential information covering the following elements:</p> <p>Environmental Assessment and Management in Ethiopia, Environmental Impact Assessment Process, Standards and Guidelines, Issues for sector EIA in Ethiopia covering agriculture, industry, transport, mining, dams and reservoirs, tanneries, textiles, hydropower generation, irrigation projects and resettlement.</p>

5.1.5. Relevant and applicable International Conventions and protocols ratified by Ethiopia

Ethiopia has ratified several international/multilateral environmental conventions and protocols. Many of the principles and provisions in those conventions and protocols have been addressed in the national environmental policies and regulations. Accordingly, Article 9(4) of the constitution of the Federal Democratic Republic of Ethiopia states that once an international agreement is ratified it will be automatically becoming an integral part of the law of the land.

The following international/multilateral environmental conventions and protocols are relevant to the PACT Project.

UN Framework Convention on Climate Change

The convention provides a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change and coping with its impacts. The objective of this convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous interference with the climate system. Ethiopia ratified this convention in May 2/1994.

Paris Agreement to the United Nations Framework Convention on Climate Change

The Paris agreement is a legally binding agreement on climate change, and it was ratified by Ethiopia in March 2017. The agreement's goal is to limit global warming to well below 1.5 degree Celsius, compared to pre-industrial era. The Paris Agreement is a landmark in the multilateral climate change process because, for the first time, a binding agreement that brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects.

Ethiopia's updated NDC and Climate Resilient Green Economy Strategy commit to reduce emissions by 68.8% compared to BAU projections by 2030, including 14% reductions unconditionally committed and 54.8% contingent on international support. The updated NDC also includes 40 prioritized adaptation actions that derive from the NAP and align with the 10-year national development plan. The updated NDC is based on a robust set of technical information, policy review and data, significantly improving the quality and ambition of Ethiopia's commitment to the Paris Agreement. It also forms the basis for updating the CRGE, Ethiopia's primary strategy for climate action. The updated NDC is also integrated to the 10-year development plan - Ethiopia's first long term development strategy - with support from the World Bank, GIZ and the World Resources Institute. The Partnership started engagement with Ethiopia in 2019, with a request for support to strengthen MRV systems and develop a knowledge management tool to centralize reporting and provide information on Ethiopia's implementation progress and NDC targets. Moving forward, Ethiopia is now developing an implementation plan for the NDC, with support from the NDC Partnership, UNDP and other partners supporting Ethiopia. To support the green recovery planning process from COVID-19, Ethiopia is receiving support from GIZ for an economic advisor to the Ministry of Planning and Development, formed in late 2021. The Government's priorities are largely focused on resource mobilization through project preparation, strengthening monitoring and reporting systems and coordinating support for implementation at the sector and sub-national levels.

The United Nations Conventions to Combat Desertification

The objective of the convention is to combat desertification and mitigate the effects of droughts in countries experiencing serious drought and desertification, particularly in Africa. Ethiopia has ratified the convention through its proclamation No. 80/1997.

Convention on Biological Diversity

The convention on biological diversity has three goals. These are (i) conservation of biodiversity, (ii) sustainable use of the components of biodiversity, and (iii) fair and equitable sharing of the benefits arising from the use of genetic resources. Ethiopia ratified the convention in 1994.

Cartagena Protocol on Bio-safety to the Convention on Biological Diversity

The protocol protects biological diversity from the potential risk of genetically modified organisms resulting from modern biotechnology. It aims to ensure the safe handling. Transport and use of living modified organisms (LMOs) are resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. Ethiopia ratified the protocol in Oct 2003.

Convention for the Protection of the World Cultural and Natural Heritage

Each State party of the convention recognizes that the duty of ensuring the identification, protection, conservation, presentation, and transmission to future generations of cultural and natural heritages belongs primarily to that State. Ethiopia ratified the convention on 23 November 1972.

Occupational Safety and Health Convention, 1981 (ILO - No. 155)

Article 4 of the convention stated that each member shall formulate, implement, and periodically review a coherent national policy on occupational safety, occupational health, and the working environment with the aim of the policy being to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment. Ethiopia ratified this convention in Jan 1991.

Ratified ILO Conventions:

Ethiopia has become member of ILO in 28 September 1923. The country has ratified 23 conventions of which 22 are in force. The conventions are:

- **9 fundamental:** **C029** - Forced Labour Convention, 1930 (No. 29), **C087** - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87), **C098** - Right to Organise and Collective Bargaining Convention, 1949 (No. 98), **C100** - Equal Remuneration Convention, 1951

(No. 100), **C105** - Abolition of Forced Labour Convention, 1957 (No. 105), **C111** - Discrimination (Employment and Occupation) Convention, 1958 (No. 111), **C138** - Minimum Age Convention, 1973 (No. 138), **C155** - Occupational Safety and Health Convention, 1981 (No. 155), **C182** - Worst Forms of Child Labour Convention, 1999 (No. 182)

- 1 governance: **C144** - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144) and
- 13 technical Conventions: **C002** - Unemployment Convention, 1919 (No. 2), **C011** - Right of Association (Agriculture) Convention, 1921 (No. 11), **C014** - Weekly Rest (Industry) Convention, 1921 (No. 14), **C080** - Final Articles Revision Convention, 1946 (No. 80), **C088** - Employment Service Convention, 1948 (No. 88), **C106** - Weekly Rest (Commerce and Offices) Convention, 1957 (No. 106), **C116** - Final Articles Revision Convention, 1961 (No. 116), **C156** - Workers with Family Responsibilities Convention, 1981 (No. 156), **C158** - Termination of Employment Convention, 1982 (No. 158), **C159** - Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No. 159), **C181** - Private Employment Agencies Convention, 1997 (No. 181), **MLC, 2006** - Maritime Labour Convention, 2006 (MLC, 2006)

Relevance of PACT implementation to the available national policy and legal frameworks as well as International Conventions

Policy and Legal framework	requirement	Relevance to PACT
Environmental Policy of Ethiopia	<ul style="list-style-type: none"> • Sustainable use of natural resources • Prevent the pollution of land, air, and water 	<p>PACT implementation requires use of natural resources such as water</p> <p>Some activities such as small-scale irrigation may cause pollution of environmental media</p>
National Health Policy	Promotion of disease preventive components	Some activities may create conducive environment for the prevalence of diseases such as Malaria
National Policy on Women	Creating conducive environments to ensure equality between men and women	PACT will reach out to 150,000 HHs and need to ensure adequate representation of women

Labour Policy, proclamation and relevant articles of the constitution Ratified ILO Conventions	<ul style="list-style-type: none"> • Childs should not subject to exploitative practices, • right of the security of the person • freedom of assembly and association • Sets minimum age for young workers at 14 years • 	Constructions and farm activities should consider labour rights and due attention to under age labour
Pastoral Policy	<ul style="list-style-type: none"> • Pastoral communities should be engaged in policy that affects their livelihood • The need to exploit the traditional pastoral knowledge to manage pastoral resources 	Pastoral communities should be consulted during preparation of Landscape Development and investment plans
Water Resources Management Policy	<ul style="list-style-type: none"> • The need of national efforts towards the efficient, equitable and optimum utilization of the available water resources • Allocation and apportionment of water based on comprehensive and integrated plans and optimum allocation principles that incorporate efficiency of use, equity of access, and sustainability of the resource 	Investments on small scale irrigation schemes and rainfed agriculture should ensure efficient and equitable use of water by communities
Land Tenure Policy	<ul style="list-style-type: none"> • Project plans must include attractive and sustainable resettlement strategies to the people who are going to be displaced because of the development plan, and they have to be fully convinced, compensated and have been able to participate in all phases of the project implementation 	<ul style="list-style-type: none"> • Resettlement Action Framework should be prepared and implemented accordingly • Due attention to livelihood restoration
Environnemental Impact Assessment Proclamation, Proclamation No 299/2002 EIA Procedural Guideline (draft), November 2003	<ul style="list-style-type: none"> • Establishes the requirement of an EIA procedure for all projects, and clearly describes the procedures to be followed by project proponents with respect to EIAs • Specified categories of projects to be subjected to an EIA • The need to receive an authorization from the EPA or the relevant regional environmental agency prior to commencing implementation of the project • Outlines the screening, review and approval process for development projects in Ethiopia and defines the criteria for undertaking an EIA 	Small scale irrigation schemes and other construction related sub-projects/activities may have advice environmental and social impacts and hence should be subjected the national EIA process

Environnemental Pollution Control, Proclamation No 300/2002	<ul style="list-style-type: none"> • The law addresses the management of hazardous waste, municipal waste, and the establishment of environmental quality standards for air, water and soil and monitoring of pollution. • It also addresses noise and vibration as sources of environmental pollution. 	Construction and implementation of SSI may cause pollution of environmental media and hence should comply to the national standard
Forest Development, Conservation and Utilization Proclamation No. 1065/2018	<ul style="list-style-type: none"> • Defines powers and duties for forestry management and conservation, • Defines forest ownership as: (i) Private Forest, (ii) Community Forest, (iii) Association Forest and (iv) State Forest. 	PACT has huge forestry/agro-forestry activities and there should be collaboration with responsible organizations at all level.
Expropriation of Landholdings for Public Purposes Proclamation No. 1161/2019 and Payment of Compensation Regulation No 135/2007	<ul style="list-style-type: none"> • Indicates responsibilities of landholder with respect to handing over of the land that is subject to expropriation order. • The land requesting body is required to submit to the city or Worde administration decision (of expropriation) that shows the size and the exact location of the land to be expropriated at least one year before the commencement of the project • Payment required for compensation and resettlement • Handover of land only after payments are made to the landholders • Landholders whose landholdings are expropriated are entitled for property compensation and displacement compensation 	<p>Irrigation schemes are land intensive and there might be paramagnet and/or temporary displacements.</p> <p>Sub-projects/activities should fully comply with these laws.</p>

Relevant Institutions

The discussions hereunder summarize the roles and responsibilities of institutions involved in the management of environment in one way or another in Ethiopia.

Ministry of Women, Children and Youth

The Ministry of Women, Children and Youth shall have the powers and duties to:

- Design strategic plan to ensure that opportunities are created for women and youth to actively participate in political, economic, and social affairs of the country and implement same.
- Lead and support activities of awareness creation and movement on the rights of women and children.
- Ensure that due attention is given to assign women for decision-making positions in various Government organs.
- Devise means for the proper application of women's right to affirmative action guaranteed at the national level and follow up the implementation of same.
- Undertake studies to identify discriminatory practices affecting women, facilitate the creation of conditions for the elimination of such practices, and follow up their implementation.
- Design strategies to effectively prevent and take measures against gender-based violence against women. 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.
- Encourage and support women and youth to be organized, based on their interests and needs, with a view to defending their rights and solving their problems.
- In collaboration with the relevant organs, conduct studies to identify areas of job opportunities for women and youth. design programs and projects so women and youth can benefit from these opportunities by organizing themselves into cooperative associations.
- Facilitate the setting up of development funds to create job opportunities for and ensure economic benefits to women and youth.
- Work in collaboration with relevant organs to support women and youth living in poverty to improve their livelihoods through improving saving culture, using alternative energy sources and use other appropriate technology.
- Design techniques to prevent harmful practices that cause harm to women and children. implement same upon approval.
- Coordinate actions of all stakeholders to protect the rights and well-being of children.

- Coordinate actions of all stakeholders to exert a concerted effort towards providing the proper awareness-creation and training on good parenting, character building, support, care and rehabilitation for parents and caretakers.
- Design strategies to ensure local options of care and support, including adoption, for orphaned children and children exposed to risk due to various reasons. implement same upon approval.
- Follow up care taking of children adopted abroad.
- Design strategies to ensure that government and private actors carry out their obligations to guarantee that children are beneficiaries of the development of the country. follow up implementation of same.
- In collaboration with the relevant regional government organs and other relevant bodies, design techniques necessary to implement the constitutional protection given to the family as the fundamental unit of society. follow up implementation of same.
- Design strategies to follow up and regulate that the preparation of policies, legislations, development programs and projects by Federal Government organs consider the issues of women, children, and the youth.
- Conclude international treaties relating to women and children in accordance with law and, follow up the implementation of same and submit reports to the concerned bodies.
- Collect, compile, and disseminate to relevant stakeholders' information on the objective realities of women, children, and the youth.

Ministry of Agriculture (MoA)

The Ministry of Agriculture shall have the powers and duties to:

- Follow up and provide support for the establishment of rural land management and sustainable grazing land utilization systems and organize a national data base on same.
- Facilitate the establishment of accessible rural finance system by the relevant finance institutions to farmers, pastoralists, and semi-pastoralists.
- Foster basin developments on water bodies in pastoral and semi-pastoral areas. establish natural and irrigated pasture utilization system and foster small-scale irrigation developments.
- Establish and run training centers that assist to the enhancement of agricultural development and the improvement of rural technologies.

- Coordinate activities relating to food security and job creation schemes.
- Follow up the expansion of basin developments, infrastructure, and fodder banks necessary for livestock development.
- In collaboration with the relevant organs, formulate techniques for a successful urban agriculture, and a procedure for their implementation.
- Promote the expansion of effective technologies, agricultural extension, trainings, and capacity building services that help to improve production and productivity and quality of crops, livestock and fishery, and reduce wastages.
- Formulate national livestock breeding policy, strategy, and program.
- Establish a system that ensures access to quality veterinary services to improve the prevention and - timely control of animal and fish diseases. cause the building of animal health laboratories in the country and build their capacity.
- Establish early warning system in respect of current situations that affect crop production, and livestock and fishery development.
- Build capacity for supplying, distributing, and marketing of inputs for crop production, livestock, and fishery development in order to ensure reliable supply of produce and establish and follow up the implementation of a quality control system and provide technical support to improve supply of products through the creation of market linkage.
- Establish a system to ensure that all crop, livestock, fish, livestock, and fish products marketed maintain the required quality. follow up the implementation of such system and provide technical support to create modern production systems and market linkages.
- By devise strategy to promote large agricultural investments creating effective collaboration with the relevant organs, ensure that agricultural investment activities are undertaken properly. Work in coordination with relevant Federal Government and Regional State bodies to strengthen the linkage between agriculture and industry.
- Develop a system that ensures integration and coordination of stake holders engaged in crop production and livestock development research.
- Ensure the proper execution of pesticide and animal feed quality control, and veterinary administration and regulatory activities.

- Establish a system that enables the prevention of plant and animal diseases. Lead research and studies necessary to this end. Conduct disease-control activities in respect of plants, cereals, animals, and animal products crossing Ethiopia's border. Ensure the proper execution of functions relating to coffee and tea development and marketing activities.
- Promote the expansion and strengthening of agricultural cooperatives.
- Establish a mechanism for the implementation of soil erosion prevention strategies by identifying its causes. design mechanisms for the improvement of soil fertility, protection of soil health, and for establishing national soil database.
- Cause the expansion of integrated farming to ensure sustainable development and maintenance of natural resources.
- Coordinate, in collaboration with concerned organs, activities that enable to mitigate drought vulnerability.
- Determine conditions for the issuance of certificates that may be required by companies engaged in agricultural investment

Ministry of Irrigation and Low Lands

Carry out feasibility and design of irrigation projects and supervision to ensure projects are implanted according to feasibility study and design;

- Scale up small scale irrigation schemes project
- Provide technical assistance to the small medium and large scale irrigation projects;

Federal Environmental Protection Authority

As per proclamation 916/2015, the Federal Environmental Protection Authority is bestowed among others with the powers and duties listed below.

- Coordinate activities to ensure that the environmental objectives provided under the Constitution and the basic principles set out in the Environmental Policy of the Country are realized.
- Establish a system for evaluating and decision making, in accordance with the Environmental Impact Assessment Proclamation, the impacts of implementation of investment programs and projects on environment prior to approvals of their implementation by the concerned sectoral licensing organ or the concerned regional organ.

- Coordinate actions on soliciting the resources required for building a climate resilient green economy in all sectors and at all regional levels. as well as provide capacity building support and advisory services.
- Establish an environmental information system that promotes efficiency in environmental data collection, management, and use.
- Enforcing and ensuring compliance to the ESIA proclamation which currently is being implemented through delegated authority provided to sector ministries.
- Reviewing ESIAs and monitoring the implementation of ESIA recommendations which is also in part being implemented through delegated authority provided to sector ministries.
- Regulating environmental compliance and developing legal instruments that ensure the protection of the environment.
- Ensuring that environmental concerns are mainstreamed into sector activities. and
- Coordinating, advising, assessing, monitoring, and reporting on environment-related aspects and activities

National Meteorology Agency (NMA)

In accordance with proclamation No. 201/1980 the National Meteorology Agency has the following powers and duties to:

- Establish and operate a national net-work of meteorological stations designed to represent various climatic regions of Ethiopia and to satisfy the needs of various national development plans and activates.
- Collecting all meteorological data.
- Exchange meteorological data in accordance with international agreements to which Ethiopia is a party.
- Establish and operate communication systems, in accordance with the law for the collection and dissemination of meteorological data.
- Publish and disseminate analyzed and interpreted meteorological data and meteorological forecasts.
- Give advance warning on adverse weather conditions and disseminate advice and educational information through the mass media and provide, upon request meteorological services to any person.

- Collect and centrally administer, notwithstanding the provisions of Article 5 of this proclamation, any meteorological data collected by any person in the country.
- Control air pollution and maintain the natural balance of the air in the country.

Mandates of Environment Office at the regional level

The environmental Offices of the Regional States is to evaluate environmental performance of projects within their respective regions.

- Duties and responsibilities of environment offices include the following:
- Enforcing and ensuring compliance to the ESIA proclamation which currently is being implemented.
- Reviewing ESIA's and monitoring the implementation of ESCMP recommendations.
- Regulating environmental compliance monitoring to ensure the protection of the environment.
- Ensuring that environmental concerns are mainstreamed into sector activities.
- Coordinating, advising, assessing, monitoring, and reporting on environment-related aspects and activities

5.2. Social, Environmental and Climate Assessment Procedures (SECAP, updated in 2021)

Social, environmental and climate sustainability is critical for achieving IFAD's mandate. Projects and Programs that foster social, environmental and climate sustainability rank among the Fund's highest operational priorities. To meet these objectives, in 2021 IFAD has updated its 2017 Social, Environmental and Climate Assessment Procedures (SECAP). This updated edition of SECAP lays out an improved framework and process for managing risks and impacts and integrating mainstreaming priorities into new IFAD-supported investments. SECAP will: (i) help IFAD to identify social, environmental and climate risks and impacts, and their significance, and determine the level of risk management required to address the risks and impacts associated with IFAD-supported investments and global and regional grant-funded Programs. (ii) help to identify opportunities to mainstream climate resilience, environmental sustainability, nutrition, gender equality and the empowerment of women, youth and other vulnerable groups into IFAD strategies and programming. (iii) Support borrowers/recipients/partners and IFAD in improving decision-making and promoting the sustainability of project and Program outcomes through ongoing stakeholder engagement. (iv) Assist borrowers/recipients/partners in fulfilling their own international and national social, environmental and climate commitments. (v) Ensure that IFAD's practices are aligned with its own

policies and the procedures of other multilateral financial institutions and (vi) enable IFAD to continue accessing environmental and climate financing.

IFAD's Environmental and Social Standards

IFAD's Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects. The table below summarizes IFAD's Environmental and Social Standards.

Table5. 2 Summery IFAD's Environmental and Social Standard

Environmental and Social Standards	Objectives	Scope of Application
Standard 1: Biodiversity conservation	<ul style="list-style-type: none"> -Maintain and conserve biodiversity. -Ensure the fair and equitable sharing of benefits from the utilization of genetic resources. -Respect, preserve, maintain, and encourage knowledge, innovations and practices of indigenous peoples and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources. and -Adopt a precautionary approach to natural resource conservation and management to ensure opportunities for environmentally sustainable development. <p>This standard is found relevant to the PACT Project</p>	<p>This Standard and its associated requirements apply to all IFAD-supported projects that are:</p> <ul style="list-style-type: none"> -Located in modified, natural or critical habitats. -Located in areas providing ecosystem services upon which project stakeholders depend for survival, sustenance, livelihoods or primary income, or that are used for sustaining the project. -Extracting renewable natural resources, i.e. projects that include the generation of living natural resources (e.g. plantation forestry, commercial harvesting, agriculture, livestock, fisheries, aquaculture). or -Using and commercializing an indigenous knowledge system. <p>This Standard also applies to situations where the livelihoods of affected communities –including those of indigenous peoples – whose access to or use of biodiversity, ecosystem services or living natural resources may be affected by project activities.</p>
Standard 2: Resource efficiency and pollution prevention	<p>Avoid, minimize, and manage the risks and impacts associated with hazardous substances and materials, including pesticides.</p> <p>Avoid or minimize project-related emissions of short- and long-lived climate pollutants.</p>	<p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -Significantly consume or cause consumption of water, energy or other resources. -Aim to improve existing waste-management practices.

Environmental and Social Standards	Objectives	Scope of Application
	<p>Promote more sustainable use of resources, including energy, land and water. and</p> <p>Identify opportunities for improving resource efficiency.</p> <p>This Standard applies to any IFAD-supported projects that:</p> <ul style="list-style-type: none"> -Significantly consume or cause consumption of water, energy or other resources. -Aim to improve existing waste-management practices. -Generate or cause generation of solid, liquid or gaseous waste or emissions. or -Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers <p>This standard is found relevant to the PACT Project</p>	<ul style="list-style-type: none"> -Generate or cause generation of solid, liquid or gaseous waste or emissions. or -Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers.
Standard 3: Cultural heritage	<ul style="list-style-type: none"> -Preserve and safeguard cultural heritage. -Ensure that active efforts are made to prevent IFAD-supported projects from altering, damaging, or removing any tangible or intangible cultural heritage. -Promote the equitable sharing of benefits from the use of cultural heritage. and -Promote meaningful consultation on matters related to cultural heritage. 	<p>Tangible cultural heritage may be defined as movable or immovable objects, sites, structures, groups of structures, natural features and landscapes that have archaeological, historical, religious, spiritual, or other cultural significance. Tangible cultural heritage can be found almost anywhere: in urban or rural settings, above or below ground, and even under water. Tangible cultural heritage derives its significance from various sources, whether as part of a community's cultural identity and heritage, as assets for economic or social development, or as a source of valuable scientific or historical information. As a result, its cultural significance may be local, provincial, national, or even international.</p>

Environmental and Social Standards	Objectives	Scope of Application
	This standard is found relevant to the PACT Project	<p>Intangible cultural heritage can be defined as practices, representations, expressions, knowledge, skills, and associated instruments, objects, artifacts, and cultural spaces, that communities and groups recognize as part of their cultural heritage. Intangible heritage is transmitted from generation to generation, and constantly recreated in response to changes in their environment, their interaction with nature and their history.</p> <p>The Standard applies to projects that may create risks and/or result in adverse impacts on cultural heritage, including those that may be in – or in the vicinity of – a cultural heritage site, or that propose to utilize tangible or intangible forms of cultural heritage for commercial or other purposes.</p> <p>IFAD is committed to identifying and protecting cultural heritage that borrowers/ recipients/partners could impact upon. Even smallholder agriculture and rural development projects on marginal lands may, depending on their location, involve resources of archaeological (e.g., ancient ruins, monuments, prehistoric caves), historical (e.g., original structures, architectural works, historic sites), religious (e.g., churches, mosques, temples, sacred grounds) or cultural (e.g., cemeteries, traditional meeting places) significance. Of particular concern are IFAD projects: (i) involving significant excavations, demolition, movement of earth, flooding, or other environmental changes and (ii) located in – or in the vicinity of – cultural heritage sites. IFAD will use the SECAP to ensure that any cultural heritage site involved in or potentially affected by an IFAD-supported project is identified and adequately protected.</p>
Standard 4: Indigenous peoples	Support indigenous peoples to determine priorities and strategies for exercising their right to	Consistent with international best practices ⁴⁹ and with respect for the right of self-determination, IFAD's Policy on Engagement with Indigenous

Environmental and Social Standards	Objectives	Scope of Application
	<p>development.</p> <p>Ensure that each project is designed in partnership with indigenous peoples and with their full, effective and meaningful consultation, leading to FPIC.</p> <p>Ensure that indigenous peoples obtain fair and equitable benefits and opportunities from project-supported activities in a culturally appropriate and inclusive manner. and</p> <p>Recognize and respect the rights of indigenous peoples to the lands, territories, waters and other resources that they have traditionally owned, used or relied upon.</p> <p>This standard is found relevant to the PACT Project</p>	<p>Peoples defines indigenous peoples based on the following criteria:</p> <p>Priority in time, with respect to occupation and use of a specific territory.</p> <p>The voluntary perpetuation of cultural distinctiveness, which may include aspects of language, social organization, religion and spiritual values, modes of production, laws, and institutions.</p> <p>Self-identification, as well as recognition by other groups, or by state authorities, as a distinct collectivity. and</p> <p>An experience of subjugation, marginalization, dispossession, exclusion, or discrimination</p>
Standard 5: Labor and working conditions	<p>Promote direct action to foster decent rural employment.</p> <p>Promote, respect, and realize fundamental principles and rights by:</p> <p>Preventing discrimination and promoting equal opportunities for workers.</p> <p>Supporting freedom of association and the right to collective bargaining. and</p> <p>Preventing the use of child labor and forced labor.</p> <p>Protect and promote the safety and health of workers.</p> <p>Ensure that projects comply with</p>	<p>- The following requirements should be applied in line with the unique nature of each project, its specific activities, the associated social and environmental risks and impacts, and the contractual relationships with workers engaged in the project.</p> <p>-These requirements apply to all project workers directly engaged by borrowers/recipients/ partners to work on a project or perform work essential to the project, and to people employed or engaged through third parties (e.g. contractors, subcontractors, brokers, agents and intermediaries) to perform work essential to a project.⁶¹ When a project engages community workers, relevant provisions of the requirements will be applied in a proportionate manner, recognizing the potential risks and impacts. Paragraphs 23 and 24 apply to primary supplier workers. The full requirements apply to full-time,</p>

Environmental and Social Standards	Objectives	Scope of Application
	<p>national employment and labor laws, and international commitments.</p> <p>Leave no one behind by protecting and supporting workers in disadvantaged and vulnerable situations, including women (e.g., maternity protection), young workers, migrant workers, workers in the informal economy and workers with disabilities.</p> <p>This standard is found relevant to the PACT Project</p>	<p>part-time, temporary, seasonal, and migrant workers.</p> <p>-Government civil servants working in connection with IFAD-supported projects remain subject to the terms and conditions of their existing public-sector employment arrangements</p>
Standard 6: Community health and safety	<p>Ensure quality and safety in the design and construction of programming-related infrastructure, preventing and minimizing potential safety risks and accidents.</p> <p>Avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities.</p> <p>Ensure that the safeguarding of personnel and property minimizes risks to communities and is carried out in accordance with international human rights standards and principles.</p> <p>Have in place effective measures to address emergency events, whether human-made or natural hazards.</p> <p>This standard is found relevant to the PACT Project</p>	<p>This Standard applies to projects that may pose significant risks to and adverse impacts on human health, nutrition, and safety. The applicability of this Standard will be determined during the environmental, social and climate risk screening and assessment phase, as outlined in Chapter 3. Measures to ensure occupational health and safety are covered in Standard 5: Labor and working conditions. Further requirements to avoid or minimize impacts on human health and the environment from pollution are included in Standard 2: Resource efficiency and pollution prevention.</p>
Standard 7: Physical and economic	<p>Avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by</p>	<p>This Standard applies to all IFAD-supported projects that involve any displacement or need for resettlement. The displacement may be full or</p>

Environmental and Social Standards	Objectives	Scope of Application
resettlement	<p>exploring alternative project designs and sites.</p> <p>Avoid forced eviction.</p> <p>Ensure that resettlement activities are planned and implemented collaboratively with the meaningful participation of affected people.</p> <p>Enhance and restore the livelihoods- of all displaced people. and</p> <p>Provide explicit guidance to borrowers/recipients/partners on the conditions that need to be met regarding involuntary resettlement.</p>	<p>partial, permanent or temporary, and could result from a variety of project activities. This Standard also applies to any physical or economic displacement caused by a borrower/recipient/partner for purposes relevant to the project before IFAD's involvement.</p> <p>Application of this Standard must be consistent with universal respect for fundamental human rights and freedoms,⁹¹ the principles of non-discrimination, equal opportunity and fair treatment, and the right to private property, adequate housing, and improvement of living conditions.</p>
Standard 8: Financial intermediaries and direct investments	<p>Promote sound environmental, social and climate practices, and sound human resource management with FIs and direct investees.</p> <p>Ensure that FIs and direct investees access and manage any environmental and social risks and impacts of subprojects. and</p> <p>Promote good environmental and social management practices by direct investees and in the subprojects financed by FIs.</p> <p>This standard is found not relevant to the PACT Project</p>	<p>This Standard applies to FIs and direct investees that receive financial support from IFAD, guided by its Rural Finance Policy and NSO Framework.</p> <p>When an FI receiving support from IFAD provides financing or de-risking instruments to other financial intermediaries, the primary financial intermediary should apply this Standard, guided by IFAD's Rural Finance Policy and NSO Framework, and should ensure that each FI also applies this Standard.</p> <p>If a direct investee implements other projects, subprojects or sub-activities concurrently, the investee should ensure that this Standard is applied.</p>
Standard 9: Climate change	<p>Ensure alignment of IFAD-supported projects with the Nationally Determined Contributions of countries and the goals of the Paris Agreement and other international frameworks.</p>	<p>The requirements of this Standard apply to all IFAD-supported projects that:</p> <p>Have development outcomes that may be threatened by climate change or related disaster risks.</p>

Environmental and Social Standards	Objectives	Scope of Application
	<p>Ensure that proposed activities are screened and assessed for climate change and disaster risks and impacts, including both impacts of projects and on them.</p> <p>Apply the mitigation hierarchy in project design.</p> <p>Strengthen the resilience of communities to address the risk of climate change impacts and climate-related disasters. and</p> <p>Increase the ability of communities to adapt to the adverse impacts of climate change, and foster climate resilience and low GHG-emitting projects that do not threaten food production.</p> <p>This standard is found relevant to the PACT Project</p>	<p>May contribute to increased exposure or vulnerability to climate change and related disaster risks. or may produce significant GHG emissions.</p>

6. Socio-economic and Environmental Baseline

6.1. National Context

Ethiopia is a country hosting very diverse ecosystems and habitats ranging from desert to afro alpine ecosystems in its huge altitudinal gradient. Most of the country's landscape is fabulous, rich in water resources and fertile soil for agriculture. Even though the country is rich in biodiversity resources, both its highlands and lowlands are among the thirty-five biodiversity hotspot regions of the world, implying its biodiversity resources are threatened by degradation (WLRC, 2016). The country has a long history of coping with extreme weather events. Rainfall is highly erratic and typically falls in the form of intensive convective storms spawned by the country's varied topography. Over the past three decades it has experienced countless localized drought events and major droughts. Future climate variability and change are expected to accelerate the already high levels of land degradation and soil erosion, increase vulnerability to droughts and floods, negatively impact agricultural productivity. Over the past 15 years Ethiopia has achieved substantial development progress with the poverty headcount falling from 44.2 percent to 23.5 percent from 2000-2015. However, these gains are vulnerable to climate change: more than 87% of the poor live in rural areas and are dependent on rain fed agriculture.

Land degradation in the form of soil erosion, sedimentation, depletion of nutrients, deforestation, and overgrazing is one of the basic problems facing farmers in the Ethiopian highlands, and this limits their ability to increase agricultural production and reduce poverty and food insecurity. Land degradation in Ethiopia has proceeded at an alarming rate and will be increasingly aggravated by the impact of climate change. Conservative estimates suggest that climate change will reduce agricultural crop productivity in Ethiopia by 5 -10 percent by 2030.

The proposed PACT Project will be implemented in different agro-ecological and administrative regions characterized by different regimes of rainfall, temperature, growing periods, socioeconomic and biophysical environments. The project will be implemented in 90 woredas of the five regions; namely Oromia, Amhara, SNNPRS, Somali and Sidama Regional States. Majority of the areas are typically highland agro-climatic zones (in Dega or high altitude and dry Woina Dega or mid-altitude) with cereal crop-based or mixed crop-livestock farming systems, high altitude and high rainfall, high potential productivity and moderate to severe land degradation, longer growing periods and high population density. There are also some woredas which are in the lowland agro-climatic zones where farming is crop-livestock mixed or annual/perennial crop-livestock mixed farming systems are practiced. The environmental and socioeconomic milieu of the intervention areas are characterized by high production potential but with significant limitations due to severe land degradation, high agro-ecological variability and diverse farming systems, high population density and land fragmentation. Those areas with potential access to markets to maximize return from agricultural production, development potential for surface and ground water resources to increase production and areas with critical importance for

the protection of vital economic infrastructures from on-going or potential erosion-sedimentation problems will be selected for intervention.

The planning and implementation of the PACT Program activities will be guided by the Project Appraisal Document (PAD). Project Implementation Manual (PIM). The Environmental and Social Management Framework (ESCMF), Social Assessment (SA), Resettlement Policy Framework (RPF), Gender Mainstreaming, Community Based Participatory Watershed Development Guideline and Exit Strategy and Performance Assessment for Watershed Management.

6.2. Socio-economic and Environmental Baseline at the Regional levels

The proposed project is planned to be implemented in Oromia, Amhara, Southern Nations, Nationalities and People's (SNNP) Region, Somali and Sidama regional states. The project is expected to be implemented in 90 Woredas of these regions.

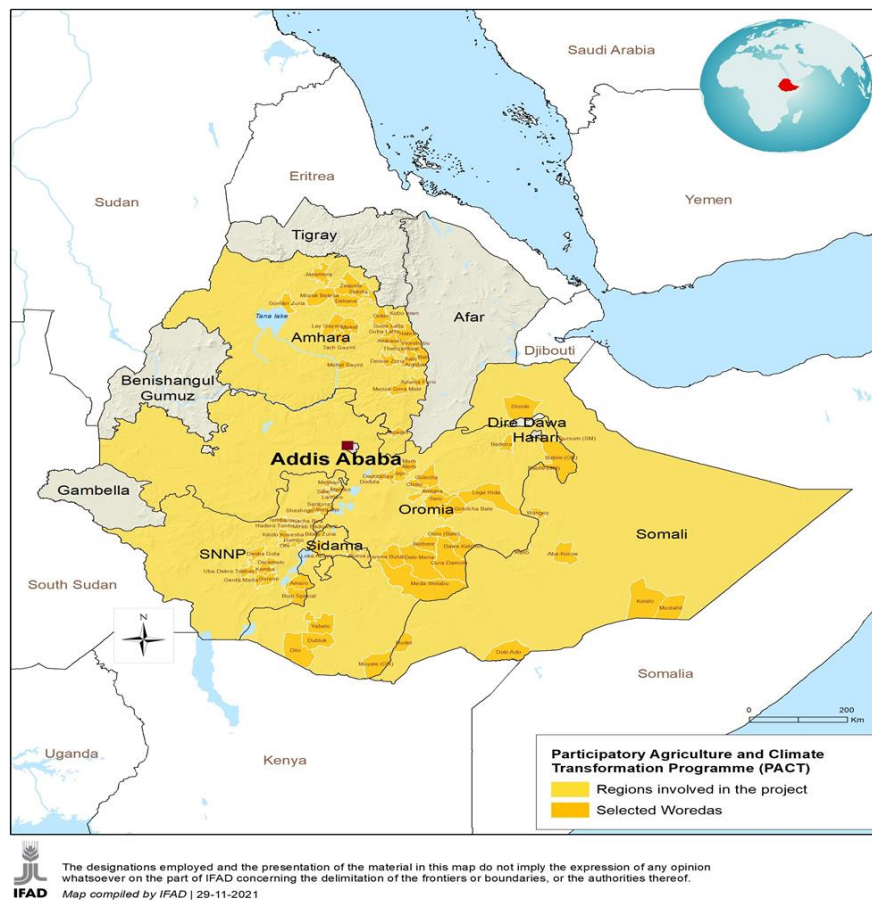


Figure 6. 1 Map Showing Project Regions

6.2.1. Amhara National Regional State

(a) Bio - Physical Environment

Topography and Climate

The Amhara National Regional State has diverse topographic features, with rugged mountains, extensive plateau and scattered plain separated by deeply cut gorges, steep slopes and cliffs. The elevation varies from 600 masl at Matera up to 4,620 masl at Ras Dashen.

The Amhara National Regional State is located between N and 13° 45' North latitude and 36° to 40°30' East longitude. It is bounded by Tigray in the north, Oromia in the south, Benishangul Gumuz in the west and Afar region in the east. The Regional State has a land area of about 161,828 km² (15% of the land area of Ethiopia).

The climatic condition of the Region is divided into temperate (Dega), subtropical (Woina Dega) and arid (Kola) agro-climatic zones. Mean annual rainfall of the Region varies from 700 mm to over 2,000 mm and the temperature range is between 10° C and 26° C. There are two rainy seasons. Short rain occurs during March, May, and April and heavy rain is during June, July and August.

Geology and Soils

The Precambrian rocks, Cenozoic rocks and Mesozoic rocks cover most part of the Amhara Region. The soil of the region includes: Arthric Acrisols, cambisols, Rendizinas, phaeozems, Lithisols, Aluvisols, and vertisols. Soil erosion is the major environmental degradation problem in the Region due to lack of vegetation cover and rugged topography. Soils in the Region are highly eroded as compared to other parts of the country. According to a study conducted in 1984 E.C, the quantity of soil loss in Amhara Region was estimated at 1.1 billion tons per year. This accounts for 58% of the total annual soil loss of the country.

Water Resources

There is an abundant water resource in the Region. The major water resources in the region are the Abay River /Blue Nile/, Tekeze River and Awash River basins. There are also several lakes like Lake Tana, Lake Zengena and Haik. Ground water resource is abundant, and it is the major water supply source in the region.

Amhara is one of the most fertile region of the country, with total rainfalls varying from 300 mm to 2,000 mm and rich in natural resources like gold, opal, coal and limestone. The region is further gifted with varied types of topography including plains, gorges, plateaus, hills and mountains, three major agricultural climatic zones (highland, semi- highland and lowland) and has several agro-ecological zones suitable for agricultural activities.

Vegetation and Wildlife

The natural forest in the **Region** is heavily depleted and degraded by intensive human interference, mainly for agricultural purpose and for energy (firewood) production. Currently less than 10% of the total estimated forest area is considered to be natural forest in the Region. The rest are scattered wood lots (planted by individual farmers on different land use types) and plantation forests (those that have been planted for different purposes).

Indigenous tree/shrub in the area include: *olea, africana, Juniperous procera, podocarpus falcatus, Acacia* species, *hygenia abyssinica, ximenia american* and *Ficus* though some of these are diminishing in the area due to human activities.

Wildlife availability among other factors depends on the extent of vegetation cover of a given area. Parks of the Siemen Mountains are preserved for the most endangered species, such as Walia Ibex, Siemen Fox, Gelada Baboons and different species of birds, most of which are endemic to Ethiopia. Endangered bird species in the region include Harwood, Francolin and Ostrich.

The Siemen Mountain National Park and protected areas of main bird sanctuaries like, Lake Tana, Ankober - Debre Sina mountain, Awi Zone, Choke Mountain, Fogera, Guasa/ in Menze/, Jama and Jara valley, Middle Abay valley, Gofa Forest are found in the region.

(b) Socio-economic Environment

Population, Ethnic and Religious Group

As per the population estimates of the CSA, in July 2016 the Region's total population was estimated to be 20,769,985. In the same estimation, the rural population was estimated to be 83.2% whereas the urban population constituted 16.8%. The population density of the region during this period was 119.8 persons/ square kilometre.

At 91.47% of the local population of the Region is predominantly inhabited by people from the Semitic-speaking Amhara ethnic group.

The predominant religion of the Amhara for centuries has been Christianity, with the Ethiopian Orthodox Tewahedo Church. According to the 2007 census, 82.5% of the population of the Amhara region is Ethiopian Orthodox, 17.2% Muslim, and 0.2% was Protestant . The Ethiopian Orthodox Church maintains close links with the Coptic Orthodox Church of Alexandria. Easter and Epiphany are the most important celebrations, marked with services, feasting and dancing. There are also many fasting days throughout the year, when only vegetables or fish may be eaten.

Economy

There are several Industrial Parks (IPs) that are in operation or under construction. The Kombolcha IP employs 20,000 people. Arerti IP and Debre Birhan IP are under construction.

Majority of the Amhara population live in the rural area and makes their living through farming. Barley, corn, millet, wheat, sorghum, and teff, beans, peppers, chickpeas, and other vegetables, are the most important crops grown in the Region. In farm lands at the highlands grows one crop per year while in the lowlands two are possible. Cattle, sheep, and goats are also raised.

Socio-Cultural and Historical Heritage

Amhara Region is rich in cultural and historical heritages. Very old Monasteries, rock-hewn churches, palaces and castles are found in the region. The Lalibella Rock-hewn Churches, the Gondar Castle that are registered as International Cultural Heritage sites are found in this Region. There are several monasteries in Lake Tana Islands, which is also the origin of Blue Nile (Abay) River. The Blue Nile Falls is found just few kilometres downstream of the Regional Capital, Bahir Dar, which is a tourist attraction site.

6.2.2. Oromia National Regional State

(a) Bio- Physical Environment

The region borders Amhara in the north, Kenya in the south, Somali Region in the east, the Republic of the Sudan and Benishangul-Gumuz in the west, Southern Nations, Nationalities and Peoples' Region and Gambela in the south.

Oromia National Regional State is located in the central part of the country and extends from south-east, bordering with Kenya in the south part and to the Sudan border in the western part. Oromia National Regional State lies between 3° 40' N and 10° 35' N latitude and 34° 05' E and 43° 11' E longitude.

Oromia is a region of great physiographic diversity. Its landscape includes high and rugged mountain ranges, undulating plateaus, panoramic gorges, and deep incised river valleys and rolling plains. Mt. Batu 4607 high is the highest peak of the region. Oromia is endowed with varied relief features which in turn accentuate varied climatic condition and other rich natural resource bases.

The Regional State has topographic mountainous features and rolling terrain in the north-western and north-eastern parts, valleys and gorges in the central and eastern, flat and plain land in the south and south-eastern part. Altitude in the Region varies from 500 masl in the south eastern part to 4,300 masl in the central and north-western parts of the region.

The topographic features of the Region have been characterized by immense geographical diversity consisting of high rugged contoured mountains dissected by the great African Rift Valley. The high mountains include

Tulu Dimtu in Bale (4,307 masl), Kecha (4,245 masl), Ankolo (4,300 masl) in Arsi, Gara Mulat in East Hararge (3,492 masl) and Bada Roge in Shewa (3,350 masl).

Climate

The climatic types prevailing in the region can be grouped into three major categories: the dry climate, tropical rainy climate and temperate rainy climate. The dry climate is characterized by poor sparse vegetation with annual mean temperature of 27°C to 39°C, and mean annual rainfall of less than 450 mm. The hot semi-arid climate with annual temperature varying between 18°C and 27°C is area of pastoralist and agro-pastoralists where the proposed project is planned to be implemented. It has a mean annual rainfall of 410-820 mm with noticeable rainfall variability from year to year.

The east and southern parts are dominated by arid climate while the central and north western parts are more of temperate climate. The lowlands (500 - 1,500 masl) experience mean annual temperature of 20°C – 25°C and altitude (1,500- 2,300 masl) have mean annual temperature of 15°C – 20°C, while the highland areas (2,300 - 3,300 masl) have mean annual temperature range of 10°C – 15°C. Mean annual rainfall ranges between 200 mm in the southeast to 2,000 mm in the north western part of the Region.

Geology, Physiographic Divisions and Seismicity

A major part of Oromia falls in the Great Rift Valley of East Africa and is tectonically unstable. It appears to be a zone of volcanic and seismic activities. There are five physiographic sub-regions in Oromia: The Rift lakes plain, the transitional scrap slopes, the young lava plain, zone of ancient crystalline rocks, the central lava highlands and massifs and zone of Mesozoic sedimentary rocks. The geology of the region consists of: rocks of the Precambrian era, rocks of the Paleozoic era, rocks of the Mesozoic era, and rocks of the Cenozoic era.

Soils

The major soil types of the region constitute Luvisols, Andosols and Fluvisols commonly found in the plain lands of riverbanks and lake shores. Andosols are formed from volcanic ash parent material. They are light, loose, and porous and have high draining capacity and easily eroded by rain or wind action. Andosols have limited agricultural value. Luvisols on the other hand are good for agriculture.

Water Resource

In the region there is an abundant water resource including surface and ground sources. Oromia possess portion of the three major drainage systems or river basins namely; Rivers that drain to the Blue Nile, Rivers that drain to the Indian Ocean and the Rift Valley closed drainage system. Most of the rift valley lakes in Ethiopia, like Lake Langano, Zeway, Abiyata, and Shalla are found in Oromia. The wetland ecosystem of these water bodies has significant environmental and socioeconomic values. Awash, Wabe-Shebele, Genale, Gibe, Baro, Dedessa and Guder are major rivers found in the region.

The crater lakes such as Green Lake, Bishoftu, Kuriftu, Bishoftu-Gudo, Hora-Kilole, Horsa Arsedi are found in this region. These lakes have immense potential for recreation and fishery development.

Vegetation and Wildlife

Oromia region possesses most of flora and fauna types found in Africa and possess several endemic species. There are about 12 million Ha of woodland and bush land covering 32% of the Region. About 70 percent of the national forest priority areas are located in Oromia. The Munesa (1,385 ha), Tiro Boter Becho (8,500 ha), Menagesha Suba (9,000 ha) are set aside as Nature Reserves in the region. The region has dense forest cover in the central, south western and western areas, while southern and south-eastern areas are covered mainly by sparse vegetation, bushes and scrubs. The vegetation types are varied including coniferous forest, broad leaved forest, woodland and savannah, grassland, riverside forests and wetland vegetation.

Oromia is also rich in wild animals. There are around 800 bird species and more than 100 wild animals in the region. Endemic wild animals such as Red Fox and Menelik Bushbuck are found in the Bale mountains national park. Awash National Park is home to the Oryx, Kudu, Caracal, Aardavark, Colobus Monkey, Green Monkeys, Baboons, Leopard, Klipspringer, Hippo, Seemering's Gazelle, Grevy's Zebra and Cheetah. Awash National Park has also bird sanctuary with bird species such as Limburger, Wattle Crane, Anger Buzzard, Verreaux Eagle and long eared owls. Waterfowl, Shore Birds and the colourful Ruddy Shelled Duck as well as the endemic Blue-winged Goose are common in the marshy areas of the park.

Parks and Natural reserve Areas

There are parks and protected sites in the region, including Awash National Park Abijatta-Shala National Park, Bale Mountain National Parks, Yabelo mountains, Controlled hunting zone of Borena, wildlife Reserves (Sanctuaries) of Babile, Senkele, and Yabelo. There are also Game Reserves in Arsi, Bale and Borena with over 20 main Bird Sanctuaries. Those parks and protected areas host variety of wildlife and important bird species. Wide varieties of wild animals exist in the Region. These include Mountain Nyala, the Giant Molerat, Ethiopian Wolf, Minilik's Bushbuck, Bohor Reed Buck, grey duiker, Oribi, Klipspringer, Grant's Gazelle, Greater Kudu, Lesser Kudu, Swayen's Hartebeest, Gerenuk, Burchell's Zebra, Warthog, Giant Forest Hog, Bush Pig, Colobus, Monkey, Anubis baboon, Spotted Hyaena, Serval Cat, Lion, Leopard, Golden Jackal and African Hunting Dog.

(b) Socio-economic Environment

Population, Ethnic and Religious Group

In the year July 2016, the CSA estimated the total population of Oromia Region as 34,575,008 comprised of 17,345,004 male and 17,230,004 female. In this estimation, the rural population and the urban population constituted 85.2% and 14.8% respectively. The religious composition of the population in the Region is 44.3% Muslims, 41.3 % Orthodox Christians, 8.6% Protestants, and 4.2% followers of traditional type. Ethnic

composition of the region is 85 % Oromo, 9.1% Amhara and 1.3% Gurage. The remaining 4.6% constitute other groups.

Based on the estimate made by local district and kebele authorities about 21,520 people have become internally displaced persons (IDPs) in border districts, namely Mieso, Doba, and Erer in the West Hararghe Zone and East Hararghe Zones. There are also being displaced in the border area of Moyale and Borena zones due to the conflict in the southern part of the region

Ethnic group residing in the region is also varied, the majority being Oromo, followed by Amhara, and several other ethnic groups. The density of the population is 106.8 persons / square kilometre.

Economy

Agriculture is the basis of livelihood for the majority of the population in the region. The region is also endowed with livestock resources, although quality and productivity is very low. Traditional range management practices have deteriorated, and development in the water sector for various purposes has led to the degradation of some wet season grazing areas. In this region grazing land has been taken away from pastoralists for irrigation and for resettlement. Bush encroachment to the grazing lands is also a serious problem the agro pastoralist is currently facing threatening their livelihood.

Based on the information published by the Commercial Department of the Oromia Region in 2014, agriculture, services and industry are the three major economic activities within the Oromia region, accounting for a respective share of 56.2%, 32.9% and 10.9% of the overall regional economy.

Oromia is a major contributor to Ethiopia's main exports - gold, coffee, khat and cattle. Lega Dembi in Guji Zone, owned by MIDROC has exported more than 5000 kilograms of gold followed by Tulu Kapi gold deposit in West Welega Zone. Awoday in East Hararghe Zone is the biggest market of khat exporting to Djibouti and Somalia. Oromia also has more abundant livestock than any other region of Ethiopia, including camels. It is also the largest producer of cereals and coffee.

According to the information obtained from Ethiopian Coffee and Tea Authority 115,083 tons of coffee was produced in Oromia from 2004 to 2005. This represents 50.7% of the total production in Ethiopia.

Archaeological and Cultural Heritages and Tourist Attraction Sites

Two project Woredas of Oromia region are endowed with different tangible and intangible cultural resources. Madda Walabu woreda Madda village (inhabited by an agro- pastoral community) where PAP-LDP is planned to be implemented has significant importance in history of Oromo people. Traditionally, it is believed to be the home and origin of Oromo people. It has thus been serving as a center of the Oromo traditional governance. The place has also served as the center of Gumiigayyoo and the seat for a number of abbaagadaas and abbaamuuda (spiritual leaders) at one time. Even if the Islamic religion is expanding and dominating the area,

still today the same ritual and gadaa ceremonies are held annually by all Oromo people from the whole of Borana and Arsi rangeland in this village.

Karjul is another sacred and religious place found in MaddaWalabu at 33 kms west of Bidire town. Karjul is equivalent to the monastery and religious place of Shek Hussein in eastern part of Bale administrative zone. In addition to these historical physical resources, the natural bridge under the Welmal Falls is a wonderful site of aesthetic value. In Liben woreda, there are 16 different sacred places where the gadaa ceremonies take place. These places are located in 10 different kebeles. They are believed to be sacred and thus protected from any intrusion by customary law. In addition to these places, there are a number of natural and cultural sites including waterfalls, elephant sanctuaries, natural caves and endemic birds.

In these woredas there are also historically underserved groups having their own boundary, language, identity, unique culture and practices. These groups are undeserved, very vulnerable and some groups are out casted. The above-mentioned groups in these Woredas are different from the wider communities because they are minorities and historically disadvantaged groups.

The hot springs in Walliso and Sodere (about 114 km southwest and east of the capital respectively) are popular attraction sites for tourists. The Sof-Omar caves in central Bale, with their galleries of polished white cone and chamber of columns are the incredible natural phenomena of great interest and beauty. The palace of Aba Jifar in Jimma is another historical attraction in the region.

Ethnicity and Religious Groups

The Sof Oumar Cave and the Aba Jiffar palace found in the Oromia National Regional State are sites of cultural heritage. The Sof-Omar caves in central Bale, with their galleries of polished white cone and chamber of columns are the incredible natural phenomena of great interest and beauty. The palace of Aba Jifar in Jimma is another historical attraction.

6.2.3. Southern Nations and Nationalities and Peoples Regional State (SNNPRS)

(a) Biophysical Environment

Location and Topography

SNNPR covers an area of 111,000 km², and accounts for 10% of the total area of the country. The region is home to more than 56 ethnic groups. SNNPR is located in the southern and south-western parts of the country. It shares borders with the neighboring counties of Sudan in the west and Kenya in the south. In the northwest, the region borders with Gambella Regional State and with Oromia Regional State in the east and north. Sidama which was once one of the zones in this region has recently declared as a separate region raising the number of regions in Ethiopia to 10.

The region has undulating topography and is dissected by the Omo river basin into western and eastern parts.

The elevation ranges from 376 to 4207 m.a.s.l, the lowest part being Lake Rudolf in South Omo and the highest being Mount Goge in North Omo. About 56% of the total area of the region lies below 1500 m.a.s.l, and is largely categorized as kola having hot climate.

Climate

The climatic condition of the area is varied, like most part of the country. About 85 % is Kola (Hot climate), 10% Woina Dega (Semi –Temperate) and 8% has Dega (Temperate) climatic conditions. The annual rainfall in Metekel zone of the Region ranges from 600 mm to 1,450 mm. The rainy season in this region is from April/May up to October/November. The dry period is between February and April. Annual temperature of Metekel zone ranges between 18⁰c and 40⁰c.

Water resource

Many perennial and seasonal rivers are found in this Region. These include, Omo, Gojeb, Mago, Segen, Woito, Akobo, Dima, Wabi, Wolga, Bilate, and Genale River. Among the known Rift Valley lakes found in this region are Awassa, Abaya, Chamo, Chew Bahir and Rudolf. . These rivers and lakes can be utilized to produce food crop and fish and for irrigation and hydroelectric development.

Coffee is the most important cash crop. Other major crops of the region include maize, teff, enset, potato, and wheat. The region has an undulating land feature dissected by the Omo River basin into western and eastern parts. The elevation ranges from 376 to 4, 207 meter above sea level. The lowest area and highest peaks in the Region is found near Lake Rudolf in South Omo and at Mount Goge in North Omo, respectively. About 56 % of the total areas of the Region are found below 1,500 meters elevation, which is categorized largely as hot low land ("Kolla"). The rest 44% is found in the temperate climatic zone.

There are 23 kinds of wild animals and 300 species of birds. Some of the wild animals found in this region are Elephant, Lion, Giraffe, Leopard, Zebra, Monkey, Lesser kudu, Water Buck, Crocodile, Rhinoceros, Warthogs, and Buffalo.

Some of the major tourist attraction sites in the Region are wassa, Abaya and Chamo lakes. Tropical forests such as Kaffecho, Shekecho and Omo are best tourist destination sites in the country. The Nechsar, Mago and Omo national parks are also found in this region.

(b) Socio-economic Environment

The larger portion of the Region is cultivated land (35%), followed by forest land (21%), and grazing land (14.9%). Agriculture is still the single most important economic activity of the Region. The land holding of peasants is generally very small. The average land holding is less than one hectare per household. Livestock production is the region's major economic activity, followed by enset, coffee production, fisheries, irrigation and eco-tourism. Teff, wheat, maize and barely are the main crops grown in most of the areas in the region.

SNNPR has five national parks (Mago, Nechsar, Omo, Chebera Churchura and Maze) and two wildlife reserves.

The State of Southern Nations, Nationalities and Peoples' Region comprise 10% of the total area of the country that is administratively divided in to 9 zones, 72 woredas and 5 special woredas. There are a total of 77 woredas and 149 towns in the State. The rural part of the State had 3804 farmers' association at the time of the 1994 census. The State lies in the southern part of the country. It has common borders with Kenya in the south, the Republic of the Sudan in the Southwest, the State of Gambella Peoples in the Northwest, and the State of Oromia in the North and East.

According to the 1994 census report, the total population size of the State is 10,377,028 of which 5,161,787 were males and 5,215,241 females. The rural population of the Region accounts to about 93.2% of the total population. North Omo, Sideman, and Garage are the three zones with the highest number of populations. The population is concentrated mostly in eastern, northern, and central part of the Region while the western and southern part of the State is sparsely populated.

There are about 45 ethnic groups in the Region. Sidamigna Gruagigna, Wolayitagna, Hadiyigna, Keffigna, and Kembatigna are widely spoken in the region. Other languages such as Gamoigna, Malo, Goffa and Gedeo are also used for communication purposes. The working language of the region is Amharic.

6.2.4. Somali Region

(a) Biophysical Environment

Location and Topography

This Region is located in the eastern and southeastern part of Ethiopia. It shares borders with Kenya at the South, Somalia Southeast and East, Djibouti to the north–West and locally Oromia and Ethiopian Somali Regional States to the west and Southwest and Northwest respectively. It has an estimated area of about 328,000 square kilometers with population size over 11 million. Somali Region large in size ranking second next to Oromia. At present the state comprises 9 administrative zones and 49 woredas.

The topography, agro climatic and agro-ecology of Somali Region is similar to Afar Region with the exception that land in this region is relatively fertile and water availability is not that scarce.

Most of the region has an altitude of 500 meters above sea level and in some areas the altitude reaches 1600 meters. Of the total area size of the Region approximately 80% is flat & 7% mountainous. Regarding climate, 80% of the region is classified as "Kolla" (lowlands), 5% highland ("Dega"), and 15% of the area fall under temperate ("Woyna Dega") category.

Climate

Similar to the Afar - region most of Somali Region is arid and semi-arid. Somali region have many rivers (Wabeshebele, Genale and Weybe Rivers) that can be harnessed to expand irrigation and sustainably produce food crops to pastoral and agro-pastoral communities of the region. Temperature reaches 32-40°C. In the temperate ("Woyna Dega") areas the temperature is within 20- 28°C. The mean annual rainfall of the State is estimated to be 300-500 mm.

Soils

Severe deforestation in and around Gode has exposed the soil to more wind erosion and affected soil depth and quality. Wind erosion has become a serious problem particularly during June to August as the Westerly Monsoon wind blows east with average speed of 6 m/s to the level of 2 m above the ground, eroding the loose alluvial soil and causing destruction to irrigation infrastructure. The worst affected kebeles are Kunka, Barsan, Godiray and Badila'ad. The threat necessitates embarking on a re-afforestation program in earnest through community awareness. The invasion of *Prosopis juliflora* into farmlands in Kelafo complicates the problem.

Salinity was reported to be a major problem of increasing concern in both the gravity and pump-fed irrigation systems. It was becoming normal practice for people to abandon farms affected by salinity and move on to new plots. In Gode, Berano and Kalafo, informants reported that 51%, 58% and 21% of the agricultural land is abandoned due to salinity and other problems. Moving on to new plots is temporary solution to the problem of salinity and the new plots are will be far from the water sources. With the new plots the fields will be far from the water sources and longer canals will be required to take the water to the e plots. Such a move will also increase the risk of the canal water being contact with gypsum in those sections aggravating soil erosion in the canals.

(b)Socio-Economic Environment

Population, Ethnicity and Religious Group

Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), the Somali Region has a total population of 7,445,219, consisting of 3,472,4132 men and 3,972,729 women and urban inhabitants number is 1,489,044 or 20% of the population. About 80% were pastoralists and farmers. With an estimated area of 327,068 square kilometers, this region has an estimated density of 20.9 people per square kilometer.

Ethnic groups living in this region include Somalis (99.2%), Amhara (0.06%), Oromo (0.46%), foreign-born Somalis (0.20%) and Gurages (0.08%). The population was projected to be 11,748,998 in 2017. There are 8 refugee camps and 1 transit center, housing 212,967 refugees from Somalia. 71.8% of the inhabitants fall into the lowest wealth quintile. Adult literacy for men is 22% and for women 9.8% and the Regional infant mortality rate is 57 infant deaths per 1,000 live births, which is less than the nationwide average of 77.

The region is home to almost all major Somali clan families. The Issa and Gadabuursi subclans of the Dir primarily inhabit the northern Sitti zone and the Awbare woreda in Fafan zone. The Habr Awal, Garhajis, Habr Je'lo and Arap clans of the Isaaq clan family inhabit the northern part of the region bordering Somaliland, with

the Habr Awal making up the majority in Harshin woreda as well as making up a significant portion of the population of the Kebribeyah woreda, as well as the lucrative border town of Tog Wajaale. The Garhajis and Habr Je'lo make up the majority of Awaare and Misrak Gashamo woredas in Jarar zone with a significant presence in the Danot woreda. Subclans of the Hawiye inhabit the western and southern areas of the region, with the Degodia being the majority in Liben and also having a large presence in Afder, Dollo, Jarar and Jijiga. Karanle and Sheekhaal are present in the western areas bordering the Oromia region and the Hawadle and Habar Gidir subclans are present in the Shabelle zone. The closely related Samaale subclan of Garre are also present in the Liben zone. Various subclans of the Darod clan family primarily inhabit the central and eastern parts of the region, with the Ogaden and Jidwaq inhabiting the interior as well as the major towns of Jijiga, Gode, Kebridehar. The Harti as well as the Leelkase clans inhabit the Dollo zone where they make up the majority while the Marehan clan inhabit the Shilavo woreda and the Liben zone. Sunni Islam accounts for 99.4% of the population whereas 0.50% Orthodox Christian, and 0.10% are followers of all other religions.

Economy

Somali has the largest pastoral area of all the regions. The Regional Disaster Prevention and Preparedness Bureau (DPPB) of the Somali State divide the region into 17 'food economy zones. Of these, eight are categorized as 'pastoralist' and five are 'agro-pastoralist' and three are agricultural zone.

Most of the people of the Somali Region i mainly earn their livelihood by rearing livestock. Some people in the region also practice crop production as well. The major crops cultivated in the region are sorghum and maize. Wheat and barley are also harvested in a smaller amount each year. Commercial activity is another occupation that is significantly exercised in the region.

The state of Somali is known for its livestock resources from which most of the Somali people earn their livelihood. The region is estimated to have about 15.2 million domestic animals out of which sheep constitute 53%. Goats and cattle are the second and third most important domestic animals in the region accounting for 20% and 15% respectively. Camels are the most important animals in day-to-day life of Somali pastoralists, and they constituted about 9% of the livestock. Somali society is based on the nuclear family, which consists of a husband, wife, and children. A typical family owns a herd of sheep or goats and a few burden camels. Some may also own a herd of milking camels. The more camels a man has, the greater his prestige within the society.

Cultural practices

The nomads live in portable huts made of wooden branches covered with grass mats. They are easily collapsible so that they can be loaded on pack animals and moved along with the herds. Their diet includes milk, meat, and wild fruits. The more settled Somali farmers live in permanent, round huts that are five to nine feet high. They have a more varied diet, which includes maize, beans, rice, eggs, poultry, bananas, dates, mangoes, and tea. The Somali share a common language, adhere to a single faith, and share a cultural heritage

that is an integral part of their nomadic lifestyle. Their name is derived from the words, "so maal," which literally mean, "Go milk a beast for yourself!" To the Somali, this is a rough expression of hospitality.

6.2.5. Sidama Regional State

Sidama, which was part of Southern Nations, Nationalities and Peoples' Region (SNNPR) with Zonal Administration level, has become Ethiopia's 10th regional state in a referendum conducted on November, 2019. The Sidama region is formed on 18 June 2020.

Since Sidama was part of the Southern Nations, Nationalities, and Peoples Region (SNNPR) until 2020 there is no much data/ information that can specifically address the socio-economic and environmental status of the Region. The limited information available that describes the state of environment of the region is discussed below.

(a) Biophysical Environment

Location and Climate

Sidama Region is northeast of Lake Abaya and southeast of Lake Awasa. Sidama is bordered on the south by the Oromia Region (except for a short stretch in the middle where it shares a border with Gedeo zone), on the west by the Bilate River, which separates it from Wolayita zone, and on the north and east by the Oromia. The Sidama live between Tikur Wuha River in the north and Dilla town in the south, spread out in a cone-shaped area of the middle of southern Ethiopia. Sidama is generally a fertile area, varying from flat land (warm to hot) to highland (warm to cold).

Sidama has geographic coordinates of latitude, north: 5'45" and 6'45" and longitude, East, 38' and 39'. It has a total area of 10,000 km², of which 97.71% is land and 2.29% is covered by water. Hawassa Lake and Logita falls are water bodies that attract tourists. Of the land, 48.70% is cultivated, 2.29% is forested, 5.04% is shrub and bushland, 17.47% is grazing land, 18.02% is uncultivated, 6.38% is unproductive and 2.10% has other uses. Some of the cultivated lands are in undulating escarpment and create difficulties for the farmers in the area.

Sidama has a variety of climatic conditions. Warm conditions cover 54% of the area. Locally known as Gamoojje or Woinadega, this is a temperate zone ranging from an elevation of 1500 m to 2500 m above sea level. The mean annual rainfall of the area varies between 1200 mm and 1599 mm, with 15 °C to 19.9 °C average annual temperature. A hot climatic zone, Kolla, covers 30% of the total area. Its elevation ranges from 500 m to 1500 m above sea level. It has a mean annual rainfall of 400 mm to 799 mm, and the mean annual temperature ranges from 20 °C to 24.9 °C. Cool climatic conditions known as Aliicho or Dega exist in the mountainous highlands. This covers 16% of the total area with an elevation between 2500 m and 3500 m above

sea level. This part gets the highest amount of rainfall, ranging from 1600 mm to 1999 mm. It has a mean annual temperature of 15 °C to 19.9 °C.

Environmental degradation

The prevalent farming system of the midlands of Sidama is under stress mainly because of burgeoning human population. Symptoms are not only the high proportion of children acutely or chronically affected by malnutrition but also the progressive degradation of resources in an environment once extremely fertile. Land erosion is commonly observed by farmers who consider it a major problem though in some plots nutrients surplus, as unused manure, was observed. Hurni (1988) classified soil erosion in Sidama as medium (20–40%). Pastureland is shrinking and degrading in its botanical composition. Most of the abundant water resources are now polluted. In order to buffer the progressive crisis, and given the presence of markets for cash crops and dairy products, the mixed system in the Sidama midlands is rapidly evolving into specialization. The area is among the richest in Ethiopia (MOA, 1984). Because of their positive role as a source of cash in the HH economy, coffee and khat plants are gradually replacing food crops in the garden such as ensete, yam and maize.

(b) Socio-economic environment

Demography

Based on the 2007 census conducted by the CSA, the region has a total population of 2,954,136, of whom 1,491,248 are men and 1,462,888 women; with an area of 6,538.17 square kilometers, Sidama has a population density of 451.83. While 162,632 or 5.51% are urban inhabitants, a further 5,438 or 0.18% are pastoralists. A total of 592,539 households were counted in this region, which results in an average of 4.99 persons to a household, and 566,926 housing units. The three largest ethnic groups reported in this region were the Sidama (93.01%), the Oromo (2.53%), and the Amhara (1.91%); all other ethnic groups made up 2.55% of the population. Sidama is spoken as a first language by 94.23% of the inhabitants, 2.14% speak Amharic, and 2.07% Oromiffa; the remaining 1.56% spoke all other primary languages reported. 84.38% of the population said they were Protestants, 4.62% were Muslim, 3.35% practiced Ethiopian Orthodox Christianity, 3.01% embraced Catholicism, and 2.72% observed traditional religions

In the 1994 census, Sidama had a population of 2,044,836 in 439,057 households, of whom 1,039,587 were men and 1,005,249 women; 143,534 or 7.02% of its population were urban dwellers. The four largest ethnic groups reported in this region were the Sidama (88.6%), the Amhara (4.15%), the Oromo (2.97%), and the Welayta (1.84%); all other ethnic groups made up 2.44% of the population. Sidama is spoken as a first language by 88.6% of the inhabitants, 4.15% speak Amharic, 2.97% Oromiffa, and 1.84% Welayta; the remaining 2.44% spoke all other primary languages reported. 62.54% of the population said they were Protestants, 13.64% observed traditional religions, 8.24% practiced Ethiopian Orthodox Christianity, 8% were Muslim, and 4.24% embraced Catholicism.

According to a 24 May 2004, World Bank memorandum, 8% of the inhabitants of Sidama have access to electricity, this region has a road density of 137.4 kilometers per 1000 square kilometers (compared to the national average of 30 kilometers),[9] the average rural household has 0.3 hectare of land (compared to the national average of 1.01 hectare of land and an average of 0.89 for the SNNPR)[10] and the equivalent of 0.5 heads of livestock. 15.4% of the population is in non-farm related jobs, compared to the national average of 25% and a regional average of 32%. 68% of all eligible children are enrolled in primary school, and 18% in secondary schools. 72% of the region is exposed to malaria, and none to tsetse fly. The memorandum gave this region a drought risk rating of 329.

Economy

Sidama region is the leading coffee producing region in Ethiopia. It is generally a fertile area, varying from flat land (warm to hot) to highland (warm to cold). Economically, most are subsistence farmers. Cattle especially are a measure of wealth. The false banana or "enset", along with maize, as well as fermented cows' milk and butter, are the major staple foods of the Sidama.

Most residents are subsistence farmers. Cattle especially, are a measure of wealth. Sidama grows several crop types. It is a major coffee-growing area, with coffee the most popular agricultural product in the region. Its prized coffee is sold on the world market. Coffee exports contribute to the country's revenue and foreign exchange and the production and exchange of coffee has been used as the main economic power of people living in Sidama. The Sidama economy is based primarily on subsistence agriculture characterized by archaic production techniques. However, coffee has been the major source of income for rural households in a substantial part of Sidama, although the recent plunge in international coffee price drew most of these households back into the subsistence production and absolute poverty (coffee prices fell dramatically even during the commodity price boom of 2001 to mid-2008). Sidama is one of the major coffee-producing regions in Ethiopia. It supplies over 40% of washed coffee to the central market. Coffee is the single major export earner for the country. Export earnings from coffee ranges from 60 to 67% although the country's share in the world market is less than 3%.^[3] The Sidama people have not faced major hunger and famine until very recently. Due to reliable rainfall and evergreen land area, they were always able to produce enough to ensure food security. The society has been characterized by what one may call a low-level economic equilibrium. Even the 1984 great famine that hit all other parts of the country did not have a major impact in Sidama. However, a continued dependence on subsistence agriculture, which relies on archaic technology and vagaries of nature coupled with massive growth of rural population, and limited rural development, has made Sidama prone to frequent hunger and famine recently. Thus about a quarter of the total population in Sidama is directly or indirectly dependent on food aid from the international community today.

Sidama Region is the leading coffee-producing region in Ethiopia, which contributes greatly to the foreign exchange of the federal government. The Central Statistical Agency (CSA) reported that 63,562 tons of coffee was produced in Sidama and Gedeo combined in the year ending in 2005, based on inspection records from

the Ethiopian Coffee and Tea authority. This represents 63% of the SNNPR's output and 28% of Ethiopia's total output.

The region is also rich in water resources, which are underutilized. The leading causes of morbidity and mortality in SNNP Region are mostly attributable to lack of clean drinking water, poor sanitation, and low public awareness of environmental health and personal hygiene practices.

There is a high value attached to livestock by the Sidama, among whom a person without cattle is not regarded as a fully-grown social person, but as an outcast.

Health

Access to water supply and sanitation in Ethiopia is amongst the lowest in Sub-Saharan Africa and the entire world. According to a 2009 IRC baseline KPC survey conducted in the Sidama region, only 7% of households reported using a latrine, whilst 93% percent practiced open defecation.^[16] There have been outbreaks of acute watery diarrhea in Sidama. The 2009–2011 Emergency Preparedness and Response Plan (EPRP) for SNNPR estimated that up to 65,260 people were affected by acute watery diarrhea in 2009.

Health extension workers (HEWs) and community health promoters (CHPs) play the greatest role in disseminating hygiene and sanitation education to the whole community in rural areas. "The preventive elements of the HEWs' and CHPs' roles involve continuous education on sanitation and hygiene to communities, including selection and communication of messages on sanitation and hygiene as well as demonstrations and actions to persuade HHs [households] to make changes in their behavior – followed by monitoring of the progress made by HHs. To assemble site-specific processes of development in each community, a large environment needs to be in place to encourage local groups to create their own appropriate solutions. Community members receive good awareness about the importance of community involvement in different processes and community members collaborate with the government and start to solve their water, hygiene and sanitation (WASH)-related problems through participatory learning and action.

Education

In the Sidama region, due to less community awareness and lower availability of schools, a smaller percentage of young children attend education. In the Sidama region there are currently 75 kindergartens, 633 primary schools and 12 secondary schools. Considering kindergarten enrollment, a total number of 6,863 students (3,700 male and 3,163 female) attend class. Total school age (4–6 years age) boys and girls are about 360,547 (181,543 male and 179,004 female), however.^[20] The gross enrollment ratio (%) in kindergarten is about 1.9% (2.04% for males and 1.77% for females). The data reveals that many fewer children in the younger generation receive educational opportunities in the Sidama Region.

Culture

Fichee is the most celebrated Sidama cultural holiday, representing the Sidama New Year. Fichee is based on the lunar system. Sidama elders (astrologists) observe the movement of the stars in the sky and decide the

date for the New Year and the Fichchee celebration. The Sidama New Year is therefore unique in that it does not have a fixed date. It rotates every year following the movements of the stars. Sidama has 13 months in a year, and each of the months is divided equally into 28 days, while the 13th month has 29 days. This is because the Sidama week has only four days and hence each month has seven weeks instead of the conventional four weeks. The names of the four days in the Sidama week are called Dikko, Deela, Qawadoo and Qawalanka, to be followed by Dikko, completing the cycle of a four-day week.

6.3. Ethiopian National Parks

There are several national parks in Ethiopia. Some of these parks are found in the regions where PACT Project is planned to be implemented. The size and locations of the national parks in Ethiopia are summarized in the table below.

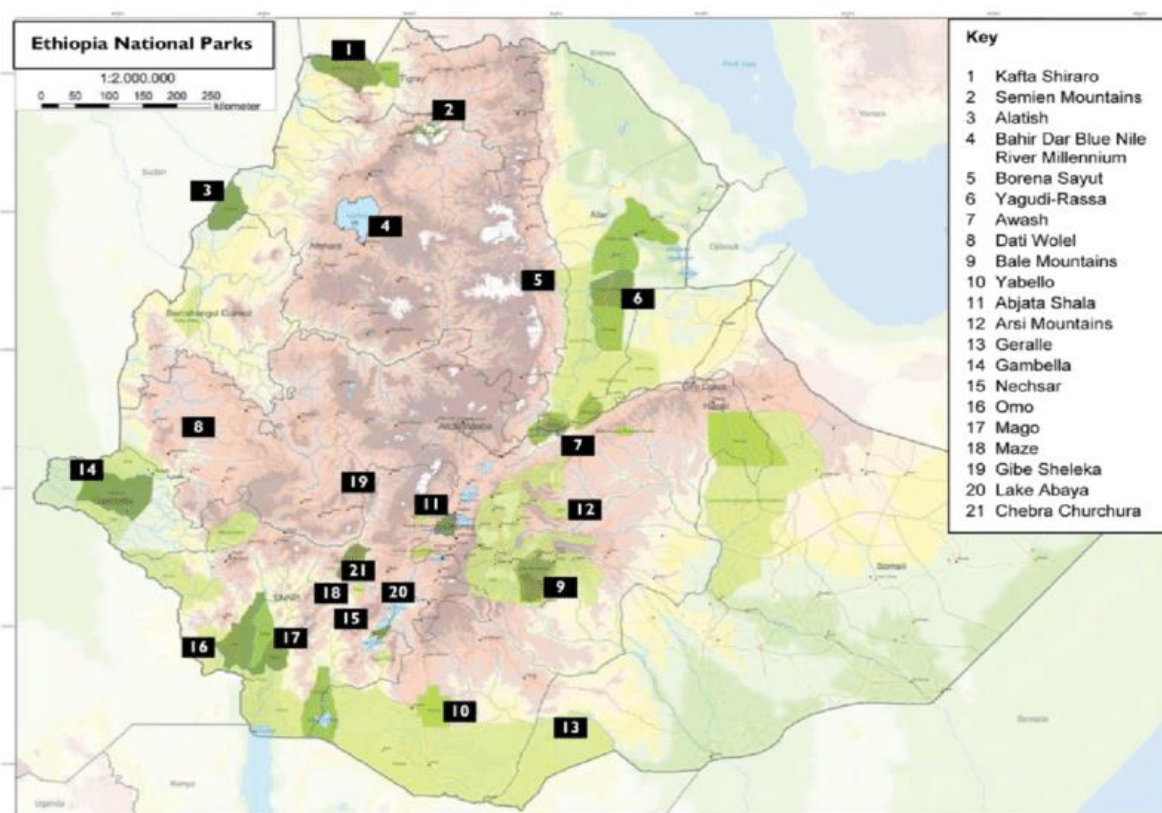


Figure 6. 2 Location map of National Parks of Ethiopia

The table 6.1 below shows names of the national Parks, their coordinates and the areas coverage within the regions.

Table 6. 1 Name, size and the corresponding coordinates of the national park within the regions

S. No	National Park	Region	Coordinates	Established	Area
1	<u>Abijatta-Shalla National Park</u>	<u>Oromia</u>	7°31'46"N 38°31'07"E	1963	887 Km ²
2	Alitash National Park	Amhara	12°06'32"N 35°33'13"E	2006	2,666 887 Km ²
3	Arsi Mountains National Park	Oromia		2011	10,876 887 Km ²
4	Awash National Park	Oromia and -	9°04'42"N 39°59'36"E	1958	850 887 Km ²
5	Bale Mountains National Park	Oromia	6°53'09"N 39°44'05"E	1962	2,200 887 Km ²
6	Bejimiz National Park	Benishangul-Gumuz and Amhara		2015	not reported
7	Borena National Park	Oromia and Somali		2017	45,366 887 Km ²
8	Chebera Churchura National Park	SNNPR	6°53'14"N 36°38'11"E	1997	1,1- 887 Km ²
9	Dati Wolel National Park	Oromia		1998	431 887 Km ²
10	Gibe Sheleko National Park	SNNPR		2001	360 887 Km ²
11	Loka-Abaya National Park	SNNPR		2001	500 887 Km ²
12	Mago National Park	SNNPR	5°31'08"N 36°20'38"E	1974	1,942 887 Km ²
13	Mao-Komo National Park	Benishangul-Gumuz and Oromia		2016	not reported

S. No	National Park	Region	Coordinates	Established	Area
14	Maze National Park	SNNPR	6°26'29"N 37°11'19"E	1997	202 887 Km ²
15	Nech Sar National Park	SNNPR	5°56'01"N 37°40'53"E	1966	750 887 Km ²
16	Omo National Park	SNNPR	6°0'N 35°50'E	1980	4,068 km ²
17	Simien Mountains National Park	Amhara	13°18'23"N 38°15'51"E	1959	412 887 Km ²

- 1 **Abijatta-Shalla National Park:** It is located in the Oromia Region 200 kilometers south of Addis Ababa, and east of the Batu–Shashamane highway. It contains 887 square kilometers. The Park includes the Rift Valley lakes of Abijatta and Shalla. The altitude of the park ranges from 1540 to 2075 meters, the highest peak being Mount Fike, which is situated between the two lakes. The primary attraction of this national park are a number of hot springs on the northeast corner of Lake Abijatta, and large numbers of flamingoes on the lake. More than 300 bird species have been recorded in Abijatta-Shalla Park. There are also Hippo, Crocodile, Giraffe, Leopard, Zebra, Warthog, Hyena, Egyptian Geese and Cheetah within this Park.
- 2 **Alitash National park:** This Park also called Alitash is a national park located in North Gondar Zone, Amhara Region, Ethiopia. It is adjacent to Sudan's Dinder National Park. The national park was founded in 2006. It covers an area of 2,666 Km². In this Park a lion of African origin was found in 2016.
- 3 **Arsi Mountains National Park:** This is a national park in Arsi Zone of Oromia Region in Ethiopia. The park was designated in 2011 and covers an area of 10876 km². The Park encompasses the Arsi Mountains, which are part of the Ethiopian Highlands. There are three main vegetation zones in the park, generally defined by altitude. The dry evergreen Afromontane forests that predominate on the lower slopes, from 2843 to 3756 meters elevation. The dry evergreen forests are interspersed with areas of mixed plantations of native and exotic trees between 3181- and 3340-meters elevations. Subalpine vegetation which is mostly scrubland is dominated by the shrubs *Erica arborea* and *Erica trimera* and it occurs from 3202 to 3985 meters elevation. Afro-alpine vegetation occurs at the highest elevations, from 3576 to 4008 meters. It is mostly made up of grasses, herbs, shrubs, including species of *Helichrysum* and *Alchemilla*, interspersed with stands of the giant lobelia *Lobelia rhynchopetalum*, which is endemic to the Afro-alpine Ethiopian Highlands. Wildlife in the park includes the endangered mountain nyala (*Tragelaphus buxtoni*) and Ethiopian wolf (*Canis simensis*).
- 4 **Awash National Park:** This Park is found in Oromia and - regions. This park is the oldest and most developed wildlife reserve in Ethiopia. Featuring the 1,800-metre Fantalle Volcano, extensive mineral hot-

springs and extraordinary volcanic formations, this natural treasure is bordered to the south by the Awash River and lies 225 kilometers east of the capital, Addis Ababa. Wildlife in this Park consists mainly of East African plains animals. Oryx, bat-eared fox, caracal, aardvark, colobus and green monkeys, Anubis and Hamadryas baboons, klipspringer, leopard, bushbuck, hippopotamus, Soemmering's gazelle, cheetah, lion, kudu and 450 species of bird all live within the park's 720 square kilometers. Over four hundred species of birds are recorded in the park. They range from the great ostrich, frequently and easily observed, and the less common Secretary Bird and Abyssinian Ground Hornbill, to the flashes of brilliant pink which are the Carmine Bee-eaters, and the Abyssinian Roller with turquoise and purple, wings.

- 5 **Bale Mountains National Park:** This Park is found in Oromia Region consists of an area of high-altitude plateau that is broken by numerous spectacular volcanic plugs and peaks, beautiful alpine lakes and rushing mountain streams that descend into deep rocky gorges on their way to the lowlands below. As you ascend into the mountains you will experience changes in the vegetation with altitude, from juniper forests to heather moorlands and alpine meadows, which at various times of year exhibit an abundance of colorful wildflowers.

Bale Mountains National Park is the largest area of Afro-Alpine habitat in the whole of the Africa Continent. It gives visitors opportunities for unsurpassed mountain walking, horse trekking, scenic driving and the chances to view many of Ethiopia's endemic mammals, in particular the Mountain Nyala and Semien Fox, and birds, such as the Thick-billed Raven, Wattled Ibis, Blue-winged Goose, and Rouget's Rail. The mountains are most famous as home and refuge of the endemic Mountain Nyala and Semien Fox. Both these mammals occur in reasonable numbers in this park

- 6 **Borena National Park:** This Park is found in Oromia and Somali Regions in southern Ethiopia. The national park was established in 2017. Most of the Park is covered by dry bush lands and thickets. The area was formerly designated as a controlled hunting zone and was predestinated a national park in 2017.
- 7 **Chebera Churchura National Park:** This national park located in Southern Nations, Nationalities, and Peoples' Region in the south west of Ethiopia. The park was founded by the regional government in 2005.
- 8 **Dati Wolel National Park:** This Park is found in Oromia Region and is unique in harboring the largest number of buffalo and hippopotamus of all the national parks in Ethiopia. The park was established in 1998, it covers an area of 431sq km. the Park is one of the few youngest protected areas in Ethiopia's western tropical forests belt. The Park is best for Buffaloes and hippos. Other notable mammals' species that are found in the park include warthogs, vervet monkeys, olive baboons, common jackal and African buffaloes.
- 9 **Gibe Sheleko National Park:** This Park is found in Southern Nations, Nationalities, and Peoples' Region and it was Gazetted in 2011. It covers 360 sq km of upland plateau, parts of the Gibe River gorge area and patches of endemic forest. Wildlife found in this Park includes 17 mammal species, such as greater kudu

and a few hippos in the river valley. Over 200 of bird species including red-winged pytilia and white-winged cliff chat are recorded in this park.

- 10 **Loko Abaya National Park:** This Park is one of the woredas in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia. It is part of the Sidama Zone located in the Great Rift Valley. Loko Abaya is bordered on the south by the Oromia Region, on the southwest by Lake Abaya, on the west by the Wolayita Zone, on the north by Boricha, on the northeast by Dale, on the east by Shebedino, and on the southeast by Chuko.
- 11 **Mago National Park:** This Park is found the Southern Nations, Nationalities, and Peoples' Region located about 782 kilometers south of Addis Ababa. The major environments in and around the park are the rivers and riverine forest, the wetlands along the lower Mago and around Lake Dipa, the various grasslands on the more level areas, and scrub on the sides of the hills. Indigenous bird life in this park include *Turdoides tenebrosus* especially at Lake Dipa, *Estrilda troglodytes* in the rank grass along streams and swamp edges, *Phoeniculus damarensis*, *Porphyrio alleni*, *Butorides striatus* also at Lake Dipa, and in riverine contexts *Pluvianus aegypticus*, *Scotopelia peli* and *Cossypha niveicapilla*. The park's perhaps best known attraction are the Mursi, known for piercing their lips and inserting disks made of clay. Big mammals such as Black Rhinoceros, Lion, Leopard, Hippopotamus, Cape buffalo, Cheetah, Giraffe, Hyena, African Wild Dog, Warthog, Nile crocodile, Zebra and African Elephant are found in this Park
- 12 **Maze National Park:** This Park is found in the Southern Nations, Nationalities, and People's Region of Ethiopia. It is 210 square kilometers in size. Elevations within the park range between 1000 and 1200 meters above sea level. Maze was founded in 2005 and is managed by the Ethiopian Wildlife Conservation Authority. Maze is noted for its population of the endangered Swayne's hartebeest (*Alcelaphus buselaphus swaynei*).

Other animals here are African buffalo, Lion, Leopard, Vervet monkeys, waterbucks, Lesser kudu, Cheetah, Warthogs, and Bushpigs.

- 13 **Nechi Sar National Park:** This Park is a national park found in the Southern Nations, Nationalities, and Peoples' Region (SNNPR) of Ethiopia and encompass an area of 750 Km². It is in the Great Rift Valley, within the southwestern Ethiopian Highlands. It is found between Lake Abaya and Lake Chamo plains east of the lakes. The Park elevations range between 1,108 and 1,650 metres above sea level. Nechisar National Park was established in 1974.

Wildlife in the park include plains zebra, Grant's gazelle, dik-dik, and the greater kudu as well as one of the last three populations of the endangered Swayne's hartebeest, African leopard, Hyena, Lion, Cheetah, African wild dog and Hippopotamus.

The park also has populations of bushbuck, bushpig, Anubis baboon, vervet monkeys, and black-backed jackal. The endangered painted hunting dog, *Lycaon pictus*, once existed in the park may now be extirpated due to human population pressures in this region. In 2009, a small group of less than 23 lions were estimated to have lived in and around the protected area.

Nechisar National Park is considered an important habitat for bird populations particularly those migrating. It is noted population of kingfishers, storks, pelicans, flamingos and African fish eagles. Other birds include *Falco naumanni* and *Circus macrourus*, which are fairly common on passage. Other species of note include *Accipiter ovampensis*, *Aviceda cuculoides*, *Gypaetus barbatus*, *Macheiramphus alcinus*, *Chelictinia riocourii*, *Francolinus levaillantii*, *Podica senegalensis*, *Crithagra reichardi*, *Schoutedenapus myoptilus*, and *Coracina caesia*.

- 14 **Omo National Park:** This Park is found in Southern Nations, Nationalities, and Peoples' Region. Far to the south-west lays Omo National Park, the largest in the country, with an area of 4,068 square kilometers. It is a vast expanse of true wilderness, adjacent to the Omo River, which flows southwards into Lake Turkana and is one of the richest and least-visited wildlife sanctuaries in eastern Africa. Eland, oryx, Burchell's zebra, Lelwel hartebeest, buffalo, giraffe, elephant, waterbuck, kudu, lion, leopard and cheetah roam within the park's boundaries. The Omo Valley is virtually free of human habitation and is rich in palaeo-anthro-pological remains. According to scientific research done in 1982 by the University of California at Berkeley, hominid remains from the Omo Valley probably date back more than four million years. Abundant wildlife, spirited rapids, innumerable side creeks and waterfalls, sheer inner canyons and hot springs all combine to make the Omo one of the world's classic river adventures.

East of the Omo River and stretching south towards the Chew Bahir basin lies the Mago National Park, rich in wildlife and with few human inhabitants. The vegetation is mainly savannah grassland and bush, extending across an area of 2,160 square kilometers. Mammal species totaling to about 81, includes hartebeest, giraffe, roan antelope, elephant, lion, leopard and perhaps even a rare black rhino.

15. **Semen Mountain National Park:** This Park which is classified as IUCN Category II is found in the Amhara Region twenty kilometers north-east of Gondar and covers an area of 179 Km² of highland area at an average elevation of 3,300 meters. Ras Dashen, at 4,620 meters the highest peak in Ethiopia, stands adjacent to the park. Within this spectacular splendor live the Walia (Abyssinian) ibex, Simien red fox and Gelada baboon all endemic to Ethiopia as well as the Hamadryas baboon, klipspringer and bushbuck. Birds such as the lammergeyer, augur buzzard, Verreaux's eagle, kestrel and falcon also soar above this mountain. Within this spectacular splendor live the Walia (Abyssinian) ibex, Simien red fox and Gelada baboon all endemic to Ethiopia - as well as the Hamadryas baboon, klipspringer and bushbuck. Birds such as the lammergeyer, augur buzzard, Verreaux's eagle, kestrel and falcon also soar above this mountain. The park was created primarily to protect the Walia Ibex, a type of wild goat, and over 1000 are said to live in the

park. Also in the Park are families of the Gelada Baboon and the rare Simien fox. The Simien fox, although named after the mountains, is rarely seen by the visitor. Over 50 species of birds have been reported in the Simien Mountains.

6.4. Wildlife Reserves and Sanctuaries

Wildlife Reserves

Chelbi Wildlife Reserve is a protected area in Ethiopia's Southern Nations, Nationalities, and Peoples' Region. The reserve covers an area of 4212 km² surrounding Lake Chew Bahir, aka Lake Chelbi, and portions of the Woito and Segen River watersheds, which empty into the lake. The reserve was established in 1973, and is also known as Chalbi, Chew Bahir, or Stephanie Wildlife Reserve. It is bounded on the south by the Kenyan border, on the east by Borena National Park, and on the west by the Murle (or Murulle) Controlled Hunting Area.

Sanctuaries

Existing sanctuary in the project area include Kuni-Muktar Mountain Nyala, Senkelle Swayne's Hartebeest and Yabelo Wildlife Sanctuary. Kuni-Muktar Mountain Nyala Sanctuary is a wildlife sanctuary in Oromia Region of Ethiopia. It was set up in 1989 through the intervention of the Zoological Society of London to safeguard a small decreasing population of the critically endangered Mountain nyala (*Tragelaphus buxtoni*). Senkelle Swayne's Hartebeest Sanctuary is a protected area in the Oromia Region (or kilil) of Ethiopia, dedicated especially to the protection of the Swayne's hartebeest (*Alcelaphus buselaphus swaynei*). Covering 54 square kilometers, the reserve is located some 10 kilometers south of the Shashemene-Arba Minch road near the town of Aje. Yabelo Wildlife Sanctuary is a protected area and wildlife sanctuary in southern Ethiopia. It is located in the Borena Zone of the Oromia Region west of the town of Yabelo, having an area of 2,500 square kilometers and elevations ranging from 1430 to 2000 meters above sea level. The wildlife sanctuary borders on Borena National Park to the south.

6.5. International designated Areas

UNESCO-MAB Biosphere Reserves found within the PACT Program Area include Kafa Biosphere Reserve and Yayu Biosphere Reserve. The Kafa Biosphere Reserve is located in the Kafa Zone of the Oromia Region approximately 460 km southwest of Addis Abba. Kafa Biosphere Reserve is the birthplace of wild Arabic coffee and contains close to 5,000 wild varieties of the plant in this biodiversity hotspot. The Yayu coffee forest biosphere reserve is in the Illubabor Zone of Oromiya Regional State, in the south-western part of Ethiopia. The biosphere reserve contains landscape elements of regional, national, and international importance. The most important landscapes are forest, agricultural land, wetland, and grazing land. The biosphere reserves include Eastern Afromontane Biodiversity Hotspot and Important Bird Areas of international significance. The area is also of cultural and historical significance.

6.6. Vulnerable Groups and Underserved Peoples in the program areas

To conceptualize and define vulnerability in the context of PACT Program, it is important to understand and determine the factors that expose people to vulnerability situation. Vulnerability describes a situation in which people find themselves that is likely to expose them to certain adversities and reduce their resilience to cope with the resulting negative impacts. Accordingly, situations that make people vulnerable may include poverty, inflation, natural disasters like flood, conflict, lack of access to information and communication, and embedded social and cultural attitudes and practices. Factors such as gender, ethnicity, religion, occupation, disability have acted as vulnerability grounds on which people have been discriminated against and experienced various disadvantages.

The National Social Protection Strategy (NSPS) of Ethiopia recognizes vulnerability as having various dimensions, and one of these is social exclusion and deprivation. Vulnerability in the context of exclusion and deprivation encompasses ‘Individuals/households who due to gender, disability, age, orphan hood, ethnicity, location or other factors face marginalization from society, or discrimination in access to services or work, people who are powerless and voiceless within their household or community’. Vulnerability can therefore be understood as an all-encompassing concept that covers all types of disadvantaged social groups who are objects of denial, exclusion, neglect, and contempt, in connection with the share of benefits and participation in decision making in multi-layered mainstream development programs.

In respect to this, focus on the identification of vulnerable groups and their circumstances, needs and interests constitute a key principle in the design and overall management of PACT. Considering this and based on the review of relevant literature gathered for Social Assessments carried out for other relevant projects, in the context of this ESCMF vulnerable groups and underserved peoples in the Program are women particularly female-household heads and those in polygamous unions, pastoral and agro-pastoral groups, unemployed and underemployed rural youths, and culturally distinct groups.

6.7. Women

PACT program treats gender as crosscutting issue requiring special focus, to empower women to fully participate and benefit in the whole range of program interventions. In the program area, as is the case in wider society, women become vulnerable because of socially constructed gender-based values and belief systems and their productive and reproductive roles in the household. In specific terms, women’s status in relation to their domestic division of labor (childcare and food preparation), socioeconomic status (limited property and ownership rights), and unequal power relations and burden of responsibilities deserve closer examination in the overall PACT project design and implementation. The status of Ethiopian women can also be seen in terms of societal attitudes towards women, their educational status and awareness of their rights. More specifically, societal attitudes towards women (e.g., they are meant to care for the domestic affairs, namely childcare, preparation of food, etc.) no or little education (with all its ramifications such as low awareness of their rights

both at micro- and macro-level) and their roles and status in the family (e.g., in polygamous unions, female-headed households) deserve closer examination in view of meeting the objective of PACT Program.

The World Bank task team in consultation with relevant stakeholders in Ethiopia conducted a rapid analysis to identify key gender gaps in Ethiopia that may help to consider these issues during the implementation of the PACT program. According to the preliminary findings of the assessment, key gender gaps are: (i) women and girls face higher risks after a natural disaster takes place, partly because of their limited voice and agency. (ii) women often do not have the income and means to effectively respond to disaster and reduce their exposure and vulnerability, which, in turn, affects their capacity to cope up with future shocks and (iii) women lack access to early warning, as these are often issued in public places, while women spend most of their time at home for childcare and other household chores.

Therefore, it is crucially important to seriously consider the gender specific statuesque in the development of the PACT program, the place of women in the program and how gender issues should be mainstreamed in respect to the key principles, prime objectives, and activities of PACT.

6.8. Pastoral and Agro-Pastoral Groups

Historically, pastoral and agro-pastoral groups used to be the most underserved communities in Ethiopia. An estimated eight to ten million people, 10% of the country's total population practice pastoralism as their predominant mode of survival across the lowlands of Ethiopia. The rangelands where pastoral practices are extensively carried out represent two-third of the total national land area. These are located in Somali and -national regional states, the Borana Zone of Oromia Region, and the South Omo Zone of the Southern Nations, Nationalities and Peoples Regional State. The pastoral and agro-pastoral populations belong to some twenty-nine ethno-linguistic groups that are classified as Cushitic, Omotic and Nilotic. The main pastoral nomadic ethnic groups in Ethiopia are geographically locates as follows: the -, Issa, and Karrayu in the northeast and east of Oromia, the Somali in the southeast, the Borana and Gujji in the south, and the Hamar, Benna, Arbore, Tsemai, Mursi, Bodi, Dassanecth, Nyangatom, and Karro, in the southwest.

Beset as it is by a range of adverse conditions, migratory pastoralist continues to sustain an increasing size of human population. Since the recent past, the herding populations in the lowland have largely been impoverished and food insecure. The arid climate of the regions characterized by frequent cases of drought has been a principal contributory factor to the prevailing conditions. Resource degradation and water scarcity aggravated by steady increases in human and livestock population, recurrent droughts, and the conversion of sizable areas of pastoral territory into dry land agricultural zones have resulted in the reduction of rangelands in terms of both quality and size. Poverty among the nomadic populations extends far beyond food insufficiency. They also have little access to socioeconomic benefits like health and education services and opportunities to income generating activities outside of the livestock domain.

The situation of pastoral communities was further compounded by lack of due policy attention. by the government. The needs and interests of pastoral groups are not given the attention they deserved in the design and implementation of development policy intervention, as compared to smallholder agricultural communities in the highlands. As a result, a substantial portion the development investment was devoted to the promotion of the non-pastoral sector of the economy. Thus, in addition to the ecological stress that pastoralists suffered, they also experienced economic and political marginalization.

Another area of possible constraints to development interventions is inter-ethnic tension and conflict in the nomadic and transhumant pastoral areas. Current studies indicate that in most of the pastoral and agro-pastoral areas where PACT will be implemented have been marked by intermittent conflicts and animosities and even open warfare. In this regard, critical problems have been witnessed among the Borana and Somalia and Guuji on the one side, and the Kore and Burji on the other, also among the Konso and Derashe and the agro-pastoral groups of the South Omo Region, in the Rift Valley Lakes Basin. There are also frequent clashes between the - and Karrayu, the - and Issa Somali, the - and Arsi Oromo, and the - and Ittu in the middle and lower Awash Valley. In the lower flood plains of the Omo-Gibe Basin, recurrent inter-group conflicts are widely prevalent between the Hamar and Dassanetch, the Borena and Arbore, the Borena and Dassanetch, and the Ngnagatom and Turkana.

The main reasons for the conflict are competition over the use of grazing land and water, cattle raiding and counter-raiding, land ownership and boundary disputes. Ethnic based regionalization has also contributed considerably to the escalation of conflicts among some neighboring groups, as there are no clear demarcations of ethnic boundaries.

For instance, hostilities among the nomadic pastoral groups in the Middle and Upper Awash Valley region are aggravated largely by the alienation of grazing land by the expansion of large-scale commercial irrigated agriculture and the extensive network of conservation areas for game/tourist parks. The conflicts are intensified as one group encroached into the territory of the other following their displacement by the development of concession agriculture. In the same way, in the 1980s, part of the territory inhabited by the agro-pastoral communities in the Lower Omo Basin was turned into a state-run irrigated farm, and recently the government has begun leasing out huge tracts of community land to foreign companies and foreign governments so that they grow cash crops including bio-fuels. As the government has taken over more and more community land, competition for scarce resources has intensified. Moreover, in July 2006, the Ethiopian government signed a contract with the Italian company, Salini Costruttori, to build Gibe III, one of the biggest hydro-electric dams in the country. This has put an end to the natural floods of the Omo River, and as the natural flood with its rich silt deposits disappears, subsistence economies are threatened with collapse, and many of the flood retreat cultivating agro-pastoral groups in the area facing food shortage. The potential for inter-group conflict will increase as people compete for scarce and dwindling resource.

Thus, if left alone such inter-ethnic conflicts will be serious challenges for the development undertakings planned to be implemented in these areas where there is resource use conflict. No doubt these inter-ethnic tensions and conflicts would pose contextual security risks in the implementation of the programme. This will necessitate into account when planning to implement some of the program activities in these conflict t zone.

6.9. Unemployment and Underemployed Rural Youths

In all the regions where PACT Program is selected unemployment and underemployment are the main factors that cause rural youths to be vulnerable groups. In the local setting of these program areas identified as unemployed rural youths are boys and girls who are out of work, not being able to find jobs in the farming villages to earn their own income and support themselves. These are young people who were forced to quit school at secondary or preparatory levels because of various challenges. Included in the same category are young men and women who have returned to their l villages to live with their families, not finding work in the urban areas after graduating from technical and vocational colleges or institutions of higher learning.

On the other hand, underemployed rural youths refer to young villagers who continue to live with their families or kids but are without their own source of income. For this reason, they engage in livestock husbandry and crop production as part of the labor force in the household. Due to the ever-dwindling family land resulting from land fragmentation, the range of household tasks can hardly fully engage them of their time and energies.

Regional rates of unemployment and underemployment are high. In the -, according to the 2013 Labor Force Survey, rural unemployment stood at 7.3%, while underemployment was recorded at 29.7. In Amhara, the figure is 1.6% and 33.6%, in Oromia, 1.5% and 43.8, Somali, 3.8% and 21.5%, SNNPR 2.6% and 38.8%, and Dire Dawa, 22.3 and 23.5%, respectively.

In respect to this, the situation of rural youths is critical particularly in Oromia and SNNPR regions, and these areas are characterized by land scarcity because of high rates of land fragmentation and population growth. Cognizant of these facts in the regions, the Oromia and SNNPR regional states have developed plans to invest large amounts of finance on the expansion of rural youth job-creation in parts of the regions.

7. Potential Environmental, Social and Climate Impacts, Risks, & Proposed Mitigation Measures

Participatory Agriculture and Climate Transformation (PACT) Project will use landscape management approach to improve community livelihood by implementing climate resilient program activities. The Program activities are primarily aimed at enhancing the positive impacts but may have some negative impacts which may occur at different stages of the program cycle mainly during implementation and operation due to improper design and implementation. The ESCMF is prepared to ensure that the implementation of the PACT Program will be carried out in an environmentally sound and socially acceptable manner while at the same time addressing issues related to climate change. It provides a framework to enable communities to screen program activities and take institutional measures to address adverse climatic, environmental, and social impacts. The environmental, climate and social management intervention is intended to maximize positive impacts and ensure sustainability of the Program minimizing and/or mitigating the negative impacts through appropriate mitigation measures. Some of the project interventions may have some localized but less sensitive, site specific and perhaps irreversible environmental and social impacts if appropriate measure is not taken and if such impacts are not considered in relation to their locations during the design of the sub-projects. The types of sub-projects which include those related to construction and maintenance of water harvesting structures (e.g., ponds, storage tanks); construction of community access roads; roadside flood harvesting/drainage systems; diversion canals, small dams; area closures; agro- forestry, small-scale irrigation, reforestation and afforestation in communal and private lands which may sometimes require land acquisition and affect the local community. The following sections discuss positive impacts and the likely negative impacts associated with PACT Program activities and mitigation measures to propose minimize impacts.

7.1. Positive Impacts

The PACT Program will enhance farmers 'adaptive capacity and improve management of natural resources. Moreover, PACT will support farmers in creating market linkage to reliably sell more of their agricultural products at higher prices. This in turn encourages farmers to invest in their own businesses and increase the quantity, quality and diversity of the goods they produce. The program will also support market research to help a farmer determine with how much of the product must be produced and for and when and for how much they should sell products in the market. The marker research will also support farmers to develop a production plan that will always ensure satisfaction of customers' demands. Support will also be provided by the project to the farmers to have access to digital market-based information system through farmer cooperatives /unions, facilitating access to matching grants for agri-business start up; provide timely information of the current market price of food commodities.

The table below indicates some of the positive impacts related to the PACT Project Components.

Table 7. 1 Positive Impacts

Component/ sub - component	Positive social impacts	Positive environmental impacts
Component 1: Community-Led Climate-Smart Productive Landscapes Subcomponent 1.1: <i>Community-led Participatory Agricultural Development Planning</i> Subcomponent 1.2 <i>Integrated Natural Resource Management</i> Subcomponent 1.3: <i>Climate Resilient Water Development for Households, Crops and Livestock Use</i> Subcomponent 1.4: <i>Market-Oriented and Nutrition-sensitive Climate-resilient Food Production and Productivity</i> Component 2: Inclusive and Equitable Market Access Subcomponent 2.1: <i>Market Access Linkage Support</i> Subcomponent 2.2: <i>Tailored Business and</i>	-Farm and landscape productivity will be improved; -Food security will be improved through better crop yields and managed agricultural resource base; -Increase income of the local community, create job opportunity (employment opportunity) for landless community members; -improved soil fertility and yields and reduce farmer's economic loss; -Creates additional job for cook-stove producers and improve their income and reduce exposure to indoor air pollution; -Possibility for the farmers to benefit from carbon financing will increase; -Mainstream nutrition across the components to equip, the PMU with adequate knowledge and skills to conduct relevant nutrition analyses, identify entry points along the food value chains, design targeted interventions for the most nutritionally vulnerable and -strengthen integration of gender, youth, environment, and climate in a food system perspective; -Leverage the climate-gender-nutrition nexus and ensure women and youth to adequately benefit from enhanced landscape restoration and management by exploring gendered specific activities,	-Important habitats and biodiversity will be restored at the landscape level; This will imply the development of a baseline assessment for critical ecosystems -Critical ecosystems will be rehabilitated, and ecosystem goods and services will be revitalized; -Enhance ecosystem service ; -Adaptive capacity of local communities will be improved by promoting climate smart agriculture; -Increase crop diversification and agricultural practices will be improved; -GHG emissions from AFOLU will be reduced and carbon sequestration will be increased; - Improves environmental conditions through soil and water conservation measures by increasing vegetation cover; enhance biodiversity conservation; -The different SWC practices help to hold soil in place during and after harvest of farm crops. This allows for ground moisture levels to remain stable , reduces soil degradation; -Rehabilitation of degraded lands through reforestation, Farmer-Managed Natural Regeneration

Component/ sub - component	Positive social impacts	Positive environmental impacts
<p><i>Finance Linkage to Agribusiness</i></p> <p><i>Subcomponent 2.3: Local Market-Related Infrastructure</i></p> <p>Component 3: Institutional and Policy Strengthening and Implementation Support Services</p> <p><i>Subcomponent 3.1: Institutional Strengthening</i></p> <p><i>Subcomponent 3.2: Programme Coordination and Implementation Support Services</i></p>	<p>including skill enhancement and promoting income-generating activities;</p> <p>-Promote climate smart technologies such as the use of power saving devices and efficient technologies such as adoption of improved cook stoves .</p> <p>-Community-led landscape rehabilitation and management of natural resources that includes infrastructure development such as water supply for domestic use and for irrigation;</p> <p>-Increased targeted food commodities in the rural areas through the introduction of small irrigation, improving value chain and facilitating service delivery to the rural poor by providing access to markets. This will involve the construction of rural road to access market and irrigation schemes, small scale irrigation sites;</p> <p>-Construction of rural water supply projects to provide drinking water to the rural poor;</p> <p>-Introduction of climate smart technologies such as fertilizer and pesticide inputs, mechanisation and the necessary information related to drought and climate change to the farmers;</p> <p>-Promotion of business to business linkages and investment in market</p>	<p>(FMNR) and agroforestry as well as soil water Conservation construction;</p> <p>-Introduce Climate adaptation and resilient technologies such as Climate smart agricultural technologies;</p> <p>- Improved soil fertility and agroecosystem productivity</p> <p>- potential increase of water availability from land restoration</p> <p>Reduced soil and water pollution from agroecological and Integrated crop management practices</p>

Component/ sub - component	Positive social impacts	Positive environmental impacts
	<p>infrastructure such as storage facilities, market sheds and rural roads;</p> <p>-Promotion of technological change for smallholder production systems to improved production and productivity of target crop and livestock commodities by introducing solar-small-scale farmer-led irrigation-related infrastructure, multipurpose water infrastructure and rehabilitation of irrigation schemes damaged due to the conflict. Promotion of renewable energy sources for powering water acquisition;</p> <p>-Enhancement of production and productivity through the use of fertilizers and pesticides and creating access to markets that help in increasing household incomes;</p> <p>-Development of Improved Farmer Led Small-scale Irrigation Systems through construction of new or rehabilitation small-scale irrigation;</p> <p>-Address production-related constraints of target crops selected by women and men farmers and create access to improved seed and soil fertility/health management including upscaling soil fertility technologies;</p> <p>-Improve crop protection system including integrated pest management practices;</p>	

Component/ sub - component	Positive social impacts	Positive environmental impacts
	<p>-Improve household level food production for home consumption and marketing and improve production of forage and feed for livestock;</p> <p>-Implement package tailored training to enhance entrepreneurial and business skills, financial literacy, climate change adaptation, leadership and digital skills and a matching grant.</p> <p>-support rural infrastructure investments that can add market and nutritional value at the location, guarantee food safety, extend shelf life, upgrade performance of enterprises and support associated agricultural producers, including women, to become competitive, sustainable commercial businesses in an environmentally friendly manner Infrastructure including market sheds, storage facilities for farmer's organizations, renovation/improvement of rural access roads;</p> <p>-Support to Young Women and Men Agripreneurs Local Climate resilient, Market-Related Infrastructure by strengthening Institution and Policy Support that will be responsible for overseeing and/or implementing safeguard policies indicated in the ESMCF document.</p>	

7.2. Positive Role of PACT Project in the Adaption and Mitigation of Climate Change

PACT will support interventions that will reduce land degradation and enhance climate resilience of communities and ecosystems. Natural Resource management and climate adaptation and mitigation interventions pursuant measures specified into the Ethiopia's Climate Resilient Green Economy Strategy (CRGE), National Adaptation Plan (NAP) and the Updated Nationally Determined Contributions (NDC) will be implemented in target regions and Woredas. PACT implementation will use participatory and landscape approaches in which target communities and other stakeholders will be consulted to identify environment and climate challenges and prioritizes proved traditional and innovative technologies and techniques to address the challenges. Besides, IFAD's tools will be used to prioritize adaptation measures. NRM and climate adaptation and mitigation measures will be integrated into project intervention and implemented across the landscape.

PACT Project is expected to play positive role in the reduction of carbon releases into the atmosphere. Most of the PACT Project activities are aimed to promote agricultural productivity. At the same time, they will enhance climate adaption and mitigation and minimize carbon release into the atmosphere.

Mitigation aims to reduce emissions or enhance the sinks of greenhouse gases, while adaptation aims to reduce the vulnerability of people and ecosystems to climate variation and change that is the degree to which they are susceptible to, and unable to cope with, adverse impacts of climate.

The table 7.2 below depicts the role of PACT Project in Mitigation and adaption of Climate change

Table 7. 2 The positive role of PACT Program in Mitigation and adaption of Climate change

PACT Project Activities	Adaption and mitigation actions
Ecological resilience	PACT Project activities such as enhancing ecosystem resilience improve the permanence of carbon storage and reduce climate risks for projects
Ecosystem services.	Protecting watershed initiatives in the PACT Project for adaptation can benefit to generate hydropower and clean energy production. Adapting feedstock production can ensure the sustainability of clean energy initiatives.
Minimization of displacement activities	Adapting agriculture that minimizes displacement of people due PACT Project livelihood activities may improve the sustainability of REDD+ projects by reducing pressures on forests and enhancing carbon sequestrations
Carbon funding	Adaptation initiatives by the local communities such as agroforestry and afforestation of the PACT Project can benefit from mitigation funding and carbon markets
Target groups	Climate change mitigation objectives of PACT project such as for example agroforestry, soil and water conservation and afforestation activities of the PACT Project may change the project beneficiary target groups of PACT from the most vulnerable to the most responsible for emissions
Mainstreaming	Adaptation and mitigation integration such as gender mainstreaming of the PACT Project will creates new opportunities for adaptation (or mitigation) due to women participation in all PACT Project activities.

7.3. Adverse Impacts on Social, Environmental and Climate and Proposed Mitigation measures

7.3.1. Social, Environment and Climate and Risks and Proposed Mitigation Measures

Classification of the level of Level of risks of the PACT Project indicated in the project concept note are slightly modified in the table below based on the socioeconomic and biophysical assessment of the project areas and feedback obtained from the regional consultations from the project design team.

Table 7. 3 Level of environment related project Risks

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
Environment and Climate Context	Project vulnerability to environmental conditions	Substantial	Moderate

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
Project vulnerability to climate change impacts	Land degradation is increasing at an alarming rate. The most important forms of land degradation are soil erosion, nutrient depletion, soil compaction, and increased salinization and acidity. Approximately 11 million ha of land are salt affected soils. The current rate of deforestation is estimated at 150,000 to 200,000 hectares per year		
	Integrated Natural Resource Management activities will be implemented by the project as well as through the finance from IGREENFIN and ASAP+. The most important and appropriate mitigation actions will be physical and biological soil and water conservation activities, climate smart agriculture, and landscape management including forestation, restoration and afforestation activities. Good lessons from PASIDP II (ASAP) will be scaled up.	Substantial	Substantial
	Ethiopia is the 20 th most vulnerable country to the impact of climate change. Climate variabilities, in the form of flood and drought, have long been affecting crop, livestock and forestry productivity, infrastructures, livelihood, water availability.		
	Climate resilient infrastructure development, crop and livestock productivity enhancement through the application of climate smart agriculture such as conservation agriculture, watershed management activities, nature-based solutions, ecosystem-based adaptation, and awareness and capacity development will	Substantial	Substantial

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
	enhance resilience of the community and ecosystem.		
Institutional Capacity for project Implementation and Sustainability	<p>Institutions are available but there might be a lack of adequate capacity in the implementation of safeguard policy in terms of manpower, skill, infrastructure as well as systems particularly at Region and Woreda level</p> <p>Capacity need assessment on the implementation of safeguard policy Training of experts in environmental management and safeguard policy instruments -Sharing experience on the implementation of safeguard policy from similar projects such as PASIDP II</p>	<p>Substantial</p> <p>Substantial</p>	<p>Substantial</p> <p>Low</p>
M&E arrangements	The inclusion of new elements may stretch the capacity of the M&E in the implementation of safeguard measures for the MoA.	moderate	Moderate
Biodiversity conservation	Project activities will in one way or another create genetic erosion. Avoid sites rich in biodiversity	moderate	Low
Environment, Social and Climate Impact	<p>Climate change, use of agrochemicals as well as use of forest clearance may cause loss of biodiversity</p> <p>Climate screening and implementation of mitigation measures, integrated pest management system and compliance to SECAP and national law on environment</p>	<p>Moderate</p> <p>Substantial</p>	<p>Low</p> <p>low</p>
Resource efficiency and pollution prevention	Wasteful/in-efficient use of water for irrigation, drinking as well as pollution of environmental media such as water, soil, air by	Moderate	moderate

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
	<p>construction activities, pesticides, chemical fertilisers.</p> <p>Efficient use of water through training of IWUA, deploying water regulation systems</p> <p>promotion of precise irrigation systems.</p> <p>Compliance to SECAP and national law on pollution prevention and precautionary approaches and increase use of organic fertilizer</p>		
Cultural heritage	<p>Some construction activities may impact historical, religious or cultural resources.</p> <p>Appropriate screening of project/sub project, consultation with responsible government representatives.</p> <p>There may also arise the need to modify project design to save heritage</p>	moderate	Low
Underprivileged/vulnerable Population	Pastoralist, vulnerable, and disadvantaged people may be impacted by project activities.	moderate	Low
Community health and safety	<p>Construction activities and use of agrochemicals may have a negative impact on community health and safety. Furthermore, some project activities such as water ponds/diversions may cause water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable disease. COVID-19 is still potential health threat</p>	Substantial	Moderate
	<p>Provision of PPE, Integrated Pest management practices and also deploying of COVID-19 preventing measures as well as SECAP compliance</p>	Substantial	Substantial

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
Labour and working conditions	Project activities may cause forced or child labour, gender-based violence, discriminatory and unsafe/unhealthy working conditions, low wage	Substantial	Moderate
	Awareness creation and capacity development to ensure project activities are conducted in a safe working environment. Contractor contracts will include clauses to ensure adequate working conditions. Furthermore, GRM system will be established/ strengthened so that affected people have access to address and resolve their complaints. Sensitization will also be done in collaboration with relevant authorities to prevent GBV.	Substantial	Substantial
Physical and economic resettlement	The proposed infrastructure development such as irrigation schemes, warehouses, and rural roads may cause physical, economic, and involuntary resettlement and limit access to natural resources.	Substantial	Moderate
	Adherence to SECAP and national laws entails screening of project activities and elaborating ESCMPs for the infrastructure development. FPIC, preparation of RAP and compensation prior to commencement of any physical activities will be ensured and resettlement should be voluntary. GRM should be strengthened to ensure timely and satisfactory responses to complaints.	Substantial	Substantial
Greenhouse gas emissions	Use of chemical fertilizer, deforestation and land degradation may cause emission of GHGs. Generally, the project's contribution to GHG emission is low. Much focus on low emitting animals such as poultry, sheep, and	low	low

Risks	Risks and Proposed Mitigation Measures	Level of Risk	
		Inherent	Residual Risk
	goats. Furthermore, intensive, afforestation, assisted restoration, regenerative agriculture practices and agro forestry activities to sequester large amount of GHGs.		
Vulnerability of target populations and ecosystems to climate variability and hazards	Target community and ecosystem are vulnerable to the impact of climate variability such as drought and flood. There are high hazard risks such as flood, extreme weather, wildfire , pest outbreaks	High	Substantial
	PACT will promote climate smart agriculture technologies included improved crop varieties and support financing of smallholder farmers for climate adaptation and mitigation.	moderate	Moderate
Stakeholder engagement/ coordination	Stakeholders may not be adequately engaged during project design and implementation. Lack of budget and COVID related restrictions may affect stakeholder participation as needed	high	Moderate
	Budgeted stakeholder engagement plan will be prepared to ensure (i) adequate mapping of stakeholder and beneficiaries, (ii) their demands are incorporated in the design, (iii) compliments are resolved in fair and timely manners and (iv) required capacity and awareness are in place.	Moderate	Moderate
Stakeholder grievances	Government representatives, contractors/consultants/ target community, downstream communities may have grievances because of the nature of the project. lack of or non-functional GRM system.	high	Moderate
	establishment/strengthening of GRM system, awareness creation to complainants, capacity development/training to GRM committee	Moderate	Moderate

The overall PACT Project risk is assessed as substantial.

7.2.2 Adverse Social, Environmental and Climate Impacts and Proposed Mitigation Measures

Project activities financed by PACT resources such as food crop production, water infrastructure development, reforestation, afforestation, agroforestry development and process/value addition on some agricultural products will have adverse impacts on the surrounding natural resources. These will include adverse impacts on climate, ground water pollution due to excessive use of fertilizers and pesticides, soil erosion due to farming of steep slope/ marginal land, lowering of ground water levels due to excessive water use for irrigation, contamination of food and water bodies due to improper use/storage of agro chemicals, breeding ground for insect vectors due to lack of proper drainage, shortage in animal fodder due to increase in livestock population, deforestation due to expansion of agricultural land, pollution of surface and ground water and release of pungent smell due to release of animal wastes, power shortage due to additional energy demand for agro processing and health risks due to improper use of agro-chemicals are expected to occur.

Soil erosion due to expansion of farmland

Activities like excavation and digging works during agricultural expansion will involve clearing of existing vegetation within the homestead, which may contribute to the loss of plant cover to a certain degree, and this will result in a disturbance of topsoil and cause of micro level erosion and loss of carbon in the soil. Similarly, farmers may expand their farmland to steep slopes and marginal lands. Areas that are at high risk for erosion due to steep slopes or erodible soils can be alternatively used for forage production or grazing and steeply sloped lands under cultivation can be converted to perennial plantation to minimize soil erosion. Wooded areas with poor soils and steep slopes should be left in their natural state to minimize soil erosion.

Loss of soil Fertility

The increase in the demand of staple food production could lead to overuse of arable land which becomes susceptible to loss of soil fertility. Farmers should receive training on how soil fertility can be maintained by changing cropping patterns, growing nitrogen-fixing crops and composting of crop residues to minimize loss of soil fertility using CA application

Ground water Depletion

Farmers benefitting from resources may buy water pumps to irrigate their land and produce crops, fruits and vegetables. Excessive pumping of ground water for irrigation may cause ground water depletion and drying out of boreholes that are in use by the nearby community. Ground water depletion and its impact can be avoided/ minimized by keeping recharge –discharge balance of the catchment areas. The farmers need some

capacity building or sensitization on the sustainable volumes of ground water that can be abstracted annually to minimize avoid ground water depletion.

Deforestation due to expansion of Agricultural land

The availability of funds may encourage farmers to expand their agricultural land to the adjacent forest areas. Similarly, smallholder farmers will be tempted to grow crops on steep slopes and riverbanks or encroach to the nearby forest reserves. Farmers should be sensitized and be informed of the benefits of conserving forest in terms of maintaining the balance of the ecosystem. To minimize impact assist farmers to increase production from small land and using agro- smart technology.

Impact on Biodiversity

Some project activities will generally not have any adverse impacts on terrestrial and/or aquatic biodiversity. However, there may be a case where big trees that obstruct farming activities and trees and other vegetation cover could be found within and around the farms. Under such circumstances vegetation clearance to a certain extent will sometimes be required and this may adversely affect the biodiversity of the area to some degree. It is essential to preserve tree species of biodiversity importance to minimize impacts. Similarly some project activities may disrupt wildlife habitat if such sub projects are planned to be implemented near national parks.

Impact on agriculture due to climate change

Agricultural yield could reduce from time to time due to recurrent drought and climate variability. To minimize these impacts the following mitigation measures are proposed.

- Use a set of climate resilient cropping systems and practices will be promoted to offer important adaptation benefits.
- Introduce crop diversification and the promotion of agricultural practices that are better adapted to the changing climate
- Improve production yields, greater income generation and reduced dependence on the exploitation of natural resources in lean periods.
- Enhance and improve agro-meteorological infrastructure to provide timely information services to the project beneficiaries such as cluster of smallholders, public and private investors, and value chain actors.
- Adopt climate smart technologies (sustainable land management, water harvesting technologies, clean energy and conservation of forests ecosystems)

Impact on climate due to the use of diesel fuel and wood to generate power

The use of diesel and wood to generate power will contribute to global warming. To minimize such impact energy efficient technologies and power sources such as wind and solar should be use and forests should be sustainably managed. Moreover, private investments should be encouraged to invest on climate resilient technologies to improve Energy Efficiency and practice

Shortage in animal fodder

Animal rearing and fattening will increase the number of animals and may result in shortage of animal fodder and overgrazing. Increase in the animal population will increase the likelihood of reaching the limits of the carrying capacity of the grazing land. To minimize adverse impacts the following measures can be taken.

- Control number of animals and use improved breed so that it will not exceed the carrying capacity of the grazing land-
- Avoid grazing too early so that there will be enough grass in the dry season
- Monitor rainfall patterns and growth of pasture

Cumulative Impacts of the Project

The business operations supported by the project may not have serious adverse environmental impacts. However, several projects in combination, or in combination with other government or private sector activities, could also have a larger, more significant cumulative impact. Particularly, given the nature of MSEs and their tendency to form clusters, the cumulative impacts can be considered significant. These impacts may be a result of the disposal of non-hazardous and hazardous wastes and chemicals, which may not be significant when considered individually, but significant when considered collectively.

Minimizing cumulative impacts requires introducing mitigation of the impacts of individual businesses supported by this project and of other development activities that are currently operating in the project area.

Exposure to COVID 19, HIV Aids, sexually transmitted Diseases and Gender Base Violence (GBV)

Exposure to COVID 19, HIV Aids, sexually transmitted Diseases and Gender Base Violence (GBV) may be intensified because of labor migration from place to place in search of work on public and private investments financed by PACT+

Impact to COVID 19 may be intensified because of labor migration from place to place in search of work from PACT financed Program. Any envisaged physical interaction during the project poses a high risk for Covid-19 infection and transmission for everyone involved. The likely impacts of Covid-19 can range from the following:

- Contraction of Covid-19 from gatherings for example multi-stakeholder cluster meetings, producer organisations etc which affects coordination and decision making;
- Instability of family units who are laying to the project due to sickness and possible deaths within households
- Farm Labour shortages due to Covid-19 regulations, sickness and/or deaths;

- Women facing additional work in caring for the sick, on top of their often already heavy domestic workloads. Young girls may also be required to help at home thereby limiting their opportunities in the productive sector;
- Disruption of value chain due to reduced activity on the part of financing officers, produce aggregators, transporters, processors and traders among other stakeholders;.
- Market disruptions due to value chain instability and reduced demand due to reduced buying power among consumers which will result in high value perishable produce and exports being affected thereby affecting repayment schedules

HIV Aids and Sexually transmitted Disease

HIV Aids and Sexually transmitted Diseases may be intensified because of labor migration from place to place in search of work on public and private investment Sub projects financed by PACT.

As community interacts with contractors, there is possible risk of HIV infections and transmission among the youth during construction of climate change resilient infrastructure and at the markets with increased productivity and improved market linkages. There is need to increase health seeking behavior among HIV positive women and youth to curb new incidences.

Intensification of Malaria

Increased prevalence of consequent health implications (both for employees and the surrounding community) may be associated to some businesses supported by the project. For example, malaria could be intensified in the small-scale irrigation schemes due to the formation stagnant water, site suitable for the breeding of mosquitoes. The following measures should be taken to control malaria intensification.

-Avoid mosquito breeding sites by draining ponds and standing waters;-Wear clothing such as long-sleeved shirts and pants when working outdoors;-Spraying clothing with repellents ;Use impregnated mosquito net during night.

Impact due to Increased Use of Fertilizers and Pesticides

Increase in yields of staple food-crops, commercial crops such fruits and vegetables will probably need an increased use of fertilizers and pesticides. An unsafe use of fertilizers and pesticides leads to the pollution of soils, rivers, streams and shallow aquifers. Farmers are also at risk if they do not properly control the use and storage of agrochemicals. Consumers are at risk if they eat products that are polluted by agrochemicals. In this context, the program will synergize with other IFAD projects in Ethiopia in irrigation, food crops, horticulture, dairy, natural resources management for them to not only provide starter kits to the farmers but will train them in the proper application and storage of agrochemicals.

Excessive use of fertilizers and pesticides by farmers may pollute ground water. To minimize such impacts of these inputs farmers should receive these inputs after creating awareness of the effects of these inputs on ground water and the resulting public health consequences. It is also important to encourage farmers to use manure (organic fertilizer) and apply integrated Pesticide management to fight agricultural pests using IPM and FFS establishment to minimize the use of chemical fertilizers and pesticides.

Health Impact due to poor storage and use of Agro-chemicals

Agro chemicals such as fertilizers and pesticides will be used by farmers to enhance their agricultural production. If these agro chemicals are not properly used and stored, they will contaminate food and water bodies and adversely affect the public health and the environment.

To minimize such adverse health effects training should be given to farmers to properly store and use the agro-chemicals. The following safety procedures should be maintained to minimize impacts of agro-chemicals. Also, provision for use of Personal Protection Equipment (PPE) will be promoted by PACT

Occupational Health and Safety Impacts

Child labor

With the high poverty and unemployment levels in the country, there is risk of vulnerable children flocking to construction sites for jobs with higher chances of being employed because they accept very low wage rates and have low negotiation power to poor treatment. This is especially true for the sub project that requires labor intensive work like plowing and weeding in agricultural fields to enhance crop production. Contractors and other parties may use child labor due to lack of awareness on the proclamation and the negative impact of child labor. Child labor is gross oppression of children's rights and results in cyclic poverty in the community. Project implementers should be aware that children under age of 15 years will not be employed and young workers below 18 years shall not perform work that is likely to jeopardize their health or safety. Child labour should be monitored in each project implementation area and when it takes place, a socioeconomic analysis of its cause should be conducted after taking the legal measures. Child protection laws should be disclosed to prevent the use of child labour in project activities and a surveillance and control system.

Impact of workers and community

Occupational health and safety issues will arise during the program implementation periods. This may result from improper use and lack of availability of the required Personal Protective Equipment (PPE). The contractor should provide PPE to the program beneficiaries and laborers who are engaged in the construction, installation, operation and maintenance and their proper use should be regularly monitored by the Project Coordination Unit the zonal level at all phases of the project.

Labour force may be encountered with accident during construction activities in developing irrigation infrastructures. To minimize such accident the contractor should avail PPE required at the construction site. The contractor should also provide to the labourers working on the construction sites camps that have adequate water supply and sanitation facilities.

Gender Based Violence

With high poverty and economic hardships, it is likely that adult women, young girls and young men may face exploitation in and outside their homes due to a strong patriarchal nature of the society and low negotiation power of the affected segments. There is need to:

- Take administrative and legal measures against those workers who commit GBV and sexual harassment
- Ensure that construction workers do not encounter any type of GBV and sexual exploitation, abuse and harassment
- Ensure the safety and security of construction workers and protect them from GBV and sexual harassment through code of conduct.

The following table indicates impacts directly related to the PACT Project Components, proposed mitigation measures, institution responsible for the implementation and approximate budget for the implementation of the proposed mitigation measures.

PACT Project Related impacts, proposed mitigation measures, institution responsible for the implementation of the mitigation measures and budget estimate for the implementation of the proposed mitigation measures is shown in Table 7.4 below:

Table 7. 4 PACT Project Related impacts, proposed mitigation measures, institution responsible for the implementation s and budget estimate for the mitigation measures

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
Pre-construction phase				
Land Acquisition	Farmers may lose their land during the implementation of some of the PACT sub project activities	Moderate	- Prepare an Abbreviated Resettlement Action Plan (ARAP) and Land acquisition plan and proper compensation based on the new proclamation 1161/2019 should be made to small holders farmers prior to the commencement of project construction activities that have lost property for agricultural/grazing or carbon financing, or equivalent land should be provided to the affected population	12,000,000
<i>Impact on Socio-economic environment</i>	Impact on Livelihoods	Moderate	- To minimize livelihood impact plans should be prepared and implemented to restore livelihood of the project affect population	5,100,000
Construction Phase				
	Impact on air	Moderate	Some of the techniques that must be considered by the contractor for the reduction and control of air	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>			emissions from construction sites include: <ul style="list-style-type: none"> - Minimize dust during transportation of construction materials by using covers and/or control equipment - Minimize dust by spraying water along the construction material transportation route - Manage and control emissions from vehicles transporting construction material by operating in compliance with relevant vehicle emission standards and regular maintenance to minimize air pollution; - Rehabilitate quarry to its original status 	
	Impacts on Land Use	Moderate	The following mitigation measures should be taken to minimize impact on land use <ul style="list-style-type: none"> - Disturbances must be limited to the areas where structures will be constructed; - Minimize the clearance of vegetation to avoid exposure of soil to erosion. - 	Cost to be cover by Contractor
	Impact on Livelihoods	Moderate	To minimize livelihood impact plans should be prepared and	5,100,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on Socio-economic environment</i>			implemented to restore livelihood of the project affect population	
	Traffic Congestion and Accident	Moderate	<p>Traffic congestion may occur during construction of PACT project activities. The following measures should be taken to minimize impacts;</p> <ul style="list-style-type: none"> - Ensure that construction vehicles are operated during non-peak hours; - Provide appropriate road signs to warn motorists and other road users of the ongoing construction activities ; - Appropriate signs must be displayed on appropriate sites to avoid people accidentally falling into open trenches - The incidence of road accidents during construction must be avoided or minimized through a combination of education and awareness-raising - Contractor must hire traffic controller to ensure no traffic build up along the roads; - The Resident Engineer has to ensure that transportation vehicles are operated during off-peak hours to avoid peak traffic 	Cost to be cover by Contractor
	Exposure to HIV/AIDS and	Moderate	<ul style="list-style-type: none"> - Conduct education and awareness creation campaigns to 	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
	other Sexually Transmitted Diseases (STD)		minimize the spread and impact of STDs and HIV/AIDS among the workforce - Provide free distribution and provision of condoms to construction workers by the Contractor to avoid the spread of STDs and HIV/AIDS. - Put educational posters and flyers on HIV/AIDS, using local languages to minimize the spread of HIV/AIDS. - Adopt FDRE Policy on HIV/AIDS, and provide special care and support to HIV/AIDS positive staff and AIDS patients	
	Gender Base Violence (GBV) and SEAH	Low	- Assign women in works that do not affect their biological condition - Ensure that women construction workers do not encounter any type of GBV and sexual exploitation, abuse and harassment through extending monitoring activities and system of the institution to cover construction workers. - Ensure the safety and security of women construction workers and protect them from GBV and sexual harassment in the construction site by establishing	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			<p>a standard code of conduct that will be produced by the contractor and signed by all workers</p> <ul style="list-style-type: none"> - Incorporate administrative and legal measures against those workers who commit GBV and sexual harassment. 	
	Labor Influx	Moderate	<ul style="list-style-type: none"> - prepare a comprehensive baseline with sufficient detail on local labor market dynamics - Ensure that project information and planning documentation includes project workforce estimates - Monitor for change throughout the project cycle on labor influx related mitigation compliance and on mitigation effectiveness from projects/contractors. - Specify contractor obligations and commitments related to labor influx mitigation, worker management and compliance reporting in contractor documentation - Make sure the contractor provide personal protection equipment (PPE) to the workers engaged in accident prone construction sites - Make sure the contractor provide water , food and appropriate 	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			shelter with sanitation facilities to the work force	
	Child labor	Moderate	-Targeted awareness-raising campaigns, especially for those who are most at risk of becoming victims of child forced labour and inform them about how to protect themselves against fraudulent or abusive recruitment and employment practices; -Targeted awareness-raising campaigns regarding sanctions for violating the prohibition on child forced labour;	Cost to be cover by Contractor
	Disruption of Public Services (such as water, electricity, telecommunication)	Moderate	<ul style="list-style-type: none"> - Basic service providers in the project area must be consulted in advance for possible disruption due to the construction work so that they can plan alternative means to minimize such impacts; - The contractor must communicate to the community any intended disruption of the basic services; - Any damage on the basic infrastructures must be reported as soon as possible and must be 	2,100,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			<ul style="list-style-type: none"> replaced or repaired immediately - Restrict access to the site, through a combination of institutional and administrative controls, including fencing, signage, and communication of risks to the local community - Effort must be made on minimizing disruption of infrastructure facilities; 	
<i>Impact on Socio-economic environment</i>	Occupational Health and Safety	Substantial	<ul style="list-style-type: none"> - Prepare an Contractor's Health, Safety and Environment Management Plan (HSE-MP) as per the guidelines for construction Contractors annexed in the ESCMF) - Ensure safe work practices and guidelines and adhere to safe work practices/procedures. - New workers must be provided with introduction training/awareness on health and safety features and procedures of the site. In addition, workers must also receive tool box & briefings when they move to new sites. - Conduct training on how to prevent and manage incidences. This will involve proper handling of electricity, water, 	Cost to be cover by Contractor

			<p>machinery etc. and on various modes of escape, conduct and responsibility during such incidences. All workers must fully be aware and mentally prepared for potential emergency.</p> <ul style="list-style-type: none"> - Use signage to warn staff and/or visitors in the construction activities of dangerous places and activities. - Clear marking of work site hazards and training in recognition of hazard symbols, - Strict instructions on safety must be given for drivers of heavy equipment to avoid accidents. - Supervision of works must be done regularly to ensure that safety conditions are met while any deviation from safety regulations is immediately reclaimed following the best practices of work safety - Develop evacuation procedures to handle emergency situations. - Provide adequate OHS protective gear (PPEs) to construction workers, such as hearing protection; safety glasses, gloves; use body overall to protect against dust, vapors, splashes; use safety shoe and 	
--	--	--	---	--

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			<p>hard helmets to prevent injuries from falls and overhead material drop.</p> <ul style="list-style-type: none"> - Avail or provide a full first aid kit at the construction sites, - Fence the construction or hazard sites to restrict entry of unauthorized persons 	
Operation Phase Small scale irrigation schemes, multipurpose water infrastructures, soil water conservation physical measures, local market related infrastructures and road market sheds warehouses and feeder roads of the PACT project during is expected adversely affect socioeconomic and biophysical environment				
	Water use conflict between upstream and downstream uses	moderate	<ul style="list-style-type: none"> -Locate irrigation schemes where water supplies are adequate, and the scheme will not create conflict with existing human, livestock, wildlife, or aquatic water uses, especially during dry seasons -Establish effective community organization to equitably administer water among the communities. -Carry out assessment study on water demand and availability of the project area under consideration. -Carry out community consultations to reach consensus 	Budget part of the technical Project Component

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>			<p>with upper and downstream community;</p> <ul style="list-style-type: none"> -Encourage crops with lower water demands; -Mulch exposed soil surfaces to reduce evaporation; -Consider alternatives sites when constructing a new micro dams and reservoirs; -give priority to upgrading and renovating existing water supply and irrigation system instead of constructing new ones ; -Ensure full participation of all water uses for the purpose of water supply, irrigation: livestock during the planning of micro-dams and small scale irrigation schemes; <p>Provide/ensure alternate facilities for domestic water supply; bathing and human waste disposal;</p>	
	Impact on climate	low	<p>To minimize impact on climate the following measures will need to be taken:</p> <ul style="list-style-type: none"> -Use of sets climate smart agriculture such as climate resilient cropping systems and practices will be promoted to 	Part of the technical component Project Budget

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>			<p>offer important adaptation benefits.</p> <ul style="list-style-type: none"> -Introduce crop diversification and the promotion of agricultural practices that are better adapted to the changing climate -Improve production yields, greater income generation and reduced dependence on the exploitation of natural resources in lean periods. -Enhance and improve agro-meteorological infrastructure to provide timely information services to the project beneficiaries such as cluster of smallholders, public and private investors, and value chain actors. -Adopt climate smart technologies (sustainable land management, water harvesting technologies, clean energy and conservation of forests ecosystems -Use climate smart agriculture approach to minimize greenhouse-gas emissions linked to food production - integration of innovative techniques into the production system, capturing methane from 	

			<p>manure, more efficient use of fertilizers and greater efficiency in forage production to reduce greenhouse emission.</p> <p>-Reduce food waste and consumption of emission-intensive food to contribute to cutting the greenhouse-gas emissions of agriculture.</p> <p>-Reduce livestock numbers and use improved breed , more efficient application of fertilizers, and better manure management to reduced;</p> <p>-Use integrated integrated policy approach to climate change, energy, and food security;</p> <p>-Food system will need to transformed be much more resource efficient while continuously reducing its environmental impacts, including its greenhouse-gas emissions</p> <p>-Increase yields while reducing our dependence on agrochemicals, to reduce food waste, and to reduce our consumption of resource-intensive and greenhouse gas-intensive foods.</p> <p>Use climate Smart Sustainable Agriculture model aims to enhance the capacity of the</p>	
--	--	--	--	--

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			<p>agricultural systems to support food security, incorporating the need for adaptation and the potential for mitigation into sustainable agriculture and ensure that farmers can contribute to climate change mitigation and at the same time adapt to climate change.</p> <p>-Protecting the ecosystem services essential for maintaining productivity and the ability to adapt to climate changes.</p>	
<i>Impact on biophysical environment</i>	Impact on Soil	moderate	<p>The increase in the demand of staple food production could lead to overuse of arable land which becomes susceptible to loss of soil fertility. Activities like excavation and digging works during agricultural expansion will involve clearing of existing vegetation within the homestead, which may contribute to the loss of plant cover to a certain degree, and this will result in a disturbance of topsoil and cause of micro level erosion. Similarly, farmers may expand their farmland to steep slopes and marginal lands.</p>	2,550,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			<p>The following mitigation measures should be taken to minimize impact on soil</p> <p>-Farmers should receive training on how soil fertility can be maintained by changing cropping patterns, growing nitrogen-fixing crops and composting of crop residues to minimize loss of soil fertility.</p> <p>-Areas that are at high risk for erosion due to steep slopes or erodible soils can be alternatively used for forage production or grazing and steeply sloped lands under cultivation can be converted to perennial plantation to minimize soil erosion.</p> <p>- Wooded areas with poor soils and steep slopes should be left in their natural state to minimize soil erosion.</p>	
	Impact on flora and fauna		<p>The availability of funds may encourage farmers to expand their agricultural land to the adjacent forest areas and wild life habitat. Similarly, smallholder farmers will be tempted to grow crops on steep slopes and riverbanks encroaching to the nearby forest</p>	4, 500,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>			<p>The following mitigation measures should be taken to minimize impact</p> <ul style="list-style-type: none"> - Re-plant trees as much as practical to compensate losses; - Minimize the amount of destruction caused by machinery by promoting non-mechanized methods of construction. - Limit extent of vegetation and tree clearing to only what is necessary and avoid the removal of indigenous species - Indigenous species should be planted in the area where there is no development or disturbed footprint. - Farmers should be sensitized and be informed of the benefits of conserving forest in terms of maintaining the balance of the ecosystem. - Avoid project activities away from parks and protected areas rich in wild life habitat reserves - Increase production from small land using appropriate agricultural technology 	
	Impact on water resources	moderate	Farmers benefitting resources from the PACT Project may buy water	4,500,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>			<p>pumps to irrigate their land and produce crops, fruits and vegetables. Excessive pumping of ground water for irrigation may cause ground water depletion and drying out of boreholes that are in use by the nearby community.</p> <ul style="list-style-type: none"> - Ground water depletion can be avoided/ minimized by keeping recharge/discharge balance of the catchment areas. The farmers need be educated to have the knowledge on the sustainable volumes of ground water that can be abstracted annually to minimize avoid ground water depletion. <p>The following mitigation measures should be also be taken to minimize pollution impacts on surface water</p> <ul style="list-style-type: none"> - Ensure protection of the water body ecosystem by proper handling construction materials during civil works; - Develop and implement emergency response plan for accidental oil and chemical spills; - Contaminated standing water must be immediately removed and treated or disposed of appropriately. 	

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on biophysical environment</i>	<i>Impact on biodiversity</i>	low	<p>PACT project activities will not generally have adverse impacts on terrestrial and/or aquatic biodiversity. However, there may be a case where big trees that are obstructing farming activities and trees and other vegetation cover could be found within and around the farms. Under such circumstances vegetation clearance to a certain extent will sometimes be required and this may adversely affect the biodiversity of the area to some degree. Similarly some project activities may disrupt wildlife habitat if such sub projects are planned to be implemented near national parks.</p> <p>To minimize impact on biodiversity the following mitigation measures should be implemented</p> <ul style="list-style-type: none"> -Preserve tree species of biodiversity importance; - avoid infringing on protected natural reserves and critical wildlife habitats with significant biodiversity. 	Part of technical project component budget
	Impact of the use of chemical fertilizers and pesticides	Moderate	- Provide safety training to the operators applying pesticides to	4, 800,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on socio-economic environment</i>			eradicate pests and fertilizers to enhance crop yield - Provide Personal protection equipment while handling fertilizers Provide appropriate personal protective equipment (PPE) and training on proper use and maintenance. - Install safety showers and eye wash stations near areas where hazardous chemicals are stored or used; - Use integrated pest management approach to control pests - Use traditional and cultural means to control crop pests	
	Intensification of malaria	Substantial	-Eradicate mosquito breeding sites such as ponds and stagnant water bodies -Provide impregnated net	4,500,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
<i>Impact on Socio-economic environment</i>	Exposure to COVID-19 infections	Moderate	<ul style="list-style-type: none"> - Provide sensitization or awareness creation session on COVID-19 for all workers - Engaging in frequent hand hygiene using appropriate techniques; - Implementing regular environmental cleaning and disinfection practices; - Managing excreta (faeces and urine) safely - PPE (long-sleeved gown, gloves, boots, masks, and goggles or a face shield) should always be worn when handling or transporting excreta offsite and great care should be taken to avoid splashing. - Practice proper hand hygiene and provide mask and sanitizer to all workers; - Keep a distance of minimum 2m between workers to minimize transmission of COVID-19; - Body temperature must be measured for all persons entering the site; - Put educational posters and flyers on COVID-19, using local languages to minimize the spread of COVID-19 	4,650,000

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
Decommissioning Phase				
<i>Impact on Biophysical environment</i>	Dust and odor impact on Air Quality	Moderate	<p>Dust will be generated during demolition of project infrastructures. To minimize Impact of dust generation the following mitigation measures should be taken</p> <ul style="list-style-type: none"> - Minimize dust from material handling, open area sources, including storage piles, by using control measures such as by using covers and/or control equipment (water suppression, cover) - Apply dust suppression techniques such as applying water or non-toxic chemicals to minimize dust from vehicle movements - Manage emissions from mobile sources - Dust may chock the respiratory truck of the work force while dismantling concrete structures and this effect can be minimized aeration and the using appropriate PPEs - 	Part of the contractor cost
	Contamination on Soil and Water bodies	Low	<ul style="list-style-type: none"> - Avoid waste spillage to the surrounding environment using 	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			appropriate waste containment facilities	
	Solid Waste Generation	Moderate	<ul style="list-style-type: none"> - recycle, reuse or sell demolition waste to ensure that materials that would otherwise be disposed of as waste are diverted for productive uses - dispose appropriately to a licensed and designated disposal sit materials that cannot be reused or recycled - - 	Cost to be cover by Contractor
Impact on Socio-economic environment	Job losses as a result of project closure	Low	<ul style="list-style-type: none"> - Minimize the job loss by properly planning for possible alternative job opportunities 	5,100,000
	Noise and vibration During demolishing of project infrastructure	Moderate	<ul style="list-style-type: none"> - Planning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance - Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, and exhaust 	Cost to be cover by Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Estimated budget in Birr
			muffling devices for combustion engines. - Avoid or minimize transportation through crowded community areas - Provide maintenance and proper operation of construction machinery to minimize noise	
	Occupational Health and safety of workers engaged in demolishing project structures	Moderate	- Workers must be issued with appropriate PPEs and the contractor enforces their use. - Restrict onlookers/scavengers from the site - mentioned in the construction phase above	Part of the contractor cost
Total Cost	44,900,000			

Note :As indicated in 7.1 above table estimate Budget for the implementation of the proposed mitigation measures is estimated to be **44,900,000 Birr**. Considering the current exchange rate of one USD is 52 Birr, budget required for mitigation is **865,000 USD**.

8. Social, Environmental and Climate management Plan (ESCMP)

The sub project that will be implemented under the PACT Project may not require preparation of social, environmental and climate management plan. The table below is an indicative plan and must be further developed/updated for specific sub-projects and Contractor's-ESCMP (C-ESCMP) shall be prepared by the contractors before project implementation.)

Table 8. 1 Environmental Social and Climate Management Plan

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
Pre-construction phase				
Land Acquisition	Farmers may lose their land during the implementation of some of the PACT sub project activities	Moderate	<ul style="list-style-type: none"> - - - Prepare an Abbreviated Resettlement Action Plan (ARAP) and Land acquisition plan and proper compensation based on the new proclamation 1161/2019 should be made to small holders farmers prior to the commencement of project construction activities that have lost property for agricultural/grazing or carbon financing, or equivalent land should be provided to the affected population 	Project Management Unit/Ministry of agriculture
<i>Impact on biophysical environment</i>	Impact on air	Moderate	Some of the techniques that must be considered by the contractor for the reduction and control of air	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<p>emissions from construction sites include:</p> <ul style="list-style-type: none"> - Minimize dust during transportation of construction materials by using covers and/or control equipment - Minimize dust by spraying water along the construction material transportation route - Manage and control emissions from vehicles transporting construction material by operating in compliance with relevant vehicle emission standards and regular maintenance to minimize air pollution; - Rehabilitate quarry to its original status 	
<i>Impact on Socio-economic environment</i>	Impacts on Land Use	Moderate	<p>The following mitigation measures should be taken to minimize impact on land use</p> <ul style="list-style-type: none"> - Disturbances must be limited to the areas where structures will be constructed; - Minimize the clearance of vegetation to avoid exposure of soil to erosion. 	Contractor
	Impact on Livelihoods	Moderate	To minimize livelihood impact plans should be prepared and implemented to restore livelihood	Project Management Unit/Ministry of agriculture

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on Socio-economic environment</i>			of the project affect population	
	Traffic Congestion and Accident	Moderate	<p>Traffic congestion may occur during construction of PACT project activities. The following measures should be taken to minimize impacts;</p> <ul style="list-style-type: none"> - Ensure that construction vehicles are operated during non-peak hours; - Provide appropriate road signs to warn motorists and other road users of the ongoing construction activities ; - Appropriate signs must be displayed on appropriate sites to avoid people accidentally falling into open trenches - The incidence of road accidents during construction must be avoided or minimized through a combination of education and awareness-raising - Contractor must hire traffic controller to ensure no traffic build up along the roads; - The Resident Engineer has to ensure that transportation vehicles are operated during off-peak hours to avoid peak traffic 	Project Contractor
	Exposure to	Moderate	- Conduct education and	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
	HIV/AIDS and other Sexually Transmitted Diseases (STD)		<p>awareness creation campaigns to minimize the spread and impact of STDs and HIV/AIDS among the workforce</p> <ul style="list-style-type: none"> - Provide free distribution and provision of condoms to construction workers by the Contractor to avoid the spread of STDs and HIV/AIDS. - Put educational posters and flyers on HIV/AIDS, using local languages to minimize the spread of HIV/AIDS. - Adopt FDRE Policy on HIV/AIDs, and provide special care and support to HIV/AIDs positive staff and AIDs patients 	
	Gender Base Violence (GBV) and SEAH	Low	<ul style="list-style-type: none"> - Assign women in works that do not affect their biological condition - Ensure that women construction workers do not encounter any type of GBV and sexual exploitation, abuse and harassment through extending monitoring activities and system of the institution to cover construction workers. - Ensure the safety and security of women construction workers and protect them from GBV 	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<p>and sexual harassment in the construction site by establishing a standard code of conduct that will be produced by the contractor and signed by all workers</p> <ul style="list-style-type: none"> - Incorporate administrative and legal measures against those workers who commit GBV and sexual harassment. 	
	Labor Influx	Moderate	<ul style="list-style-type: none"> - prepare a comprehensive baseline with sufficient detail on local labor market dynamics - Ensure that project information and planning documentation includes project workforce estimates - Monitor for change throughout the project cycle on labor influx related mitigation compliance and on mitigation effectiveness from projects/contractors. - Specify contractor obligations and commitments related to labor influx mitigation, worker management and compliance reporting in contractor documentation - Make sure the contractor provide personal protection equipment (PPE) to the workers engaged in 	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			accident prone construction sites - Make sure the contractor provide water , food and appropriate shelter with sanitation facilities to the work force -	
	Child labor	Moderate	-Targeted awareness-raising campaigns, especially for those who are most at risk of becoming victims of child forced labour and inform them about how to protect themselves against fraudulent or abusive recruitment and employment practices; -Targeted awareness-raising campaigns regarding sanctions for violating the prohibition on child forced labour; -	contractor
	Disruption of Public Services (such as water, electricity, telecommunication)	Moderate	- Basic service providers in the project area must be consulted in advance for possible disruption due to the construction work so that they can plan alternative means to minimize such impacts; - The contractor must communicate to the community any intended disruption of the basic services;	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<ul style="list-style-type: none"> - Any damage on the basic infrastructures must be reported as soon as possible and must be replaced or repaired immediately - Restrict access to the site, through a combination of institutional and administrative controls, including fencing, signage, and communication of risks to the local community - Effort must be made on minimizing disruption of infrastructure facilities; 	
<i>Impact on Socio-economic environment</i>	Occupational Health and Safety	Substantial	<ul style="list-style-type: none"> - Prepare an Contractor's Health, Safety and Environment Management Plan (HSE-MP) as per the guidelines for construction Contractors annexed in the ESCMF) - Ensure safe work practices and guidelines and adhere to safe work practices/procedures. - New workers must be provided with introduction training/awareness on health and safety features and procedures of the site. In addition, workers must also receive tool box & briefings when they move to new sites. 	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<ul style="list-style-type: none"> - Conduct training on how to prevent and manage incidences. This will involve proper handling of electricity, water, machinery etc. and on various modes of escape, conduct and responsibility during such incidences. All workers must fully be aware and mentally prepared for potential emergency. - Use signage to warn staff and/or visitors in the construction activities of dangerous places and activities. - Clear marking of work site hazards and training in recognition of hazard symbols, - Strict instructions on safety must be given for drivers of heavy equipment to avoid accidents. - Supervision of works must be done regularly to ensure that safety conditions are met while any deviation from safety regulations is immediately reclaimed following the best practices of work safety - Develop evacuation procedures to handle emergency situations. 	

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<ul style="list-style-type: none"> - Provide adequate OHS protective gear (PPEs) to construction workers, such as hearing protection; safety glasses, gloves; use body overall to protect against dust, vapors, splashes; use safety shoe and hard helmets to prevent injuries from falls and overhead material drop. - Avail or provide a full first aid kit at the construction sites, - Fence the construction or hazard sites to restrict entry of unauthorized persons 	
Operation Phase Small scale irrigation schemes, multipurpose water infrastructures, soil water conservation physical measures, local market related infrastructures and road market sheds warehouses and feeder roads of the PACT project during is expected adversely affect socioeconomic and biophysical environment				
<i>Impact on biophysical environment</i>	Water use conflict between upstream and downstream uses	moderate	-Locate irrigation schemes where water supplies are adequate, and the scheme will not create conflict with existing human, livestock, wildlife, or aquatic water uses, especially during dry seasons -Establish effective community organization to equitably administer water among the communities.	Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<ul style="list-style-type: none"> -Carry out assessment study on water demand and availability of the project area under consideration. -Carry out community consultations to reach consensus with upper and downstream community; -Encourage crops with lower water demands; -Mulch exposed soil surfaces to reduce evaporation; -Consider alternatives sites when constructing a new micro dams and reservoirs; -give priority to upgrading and renovating existing water supply and irrigation system instead of constructing new ones ; -Ensure full participation of all water uses for the purpose of water supply, irrigation: livestock during the planning of micro-dams and small scale irrigation schemes; Provide/ensure alternate facilities for domestic water supply; bathing and human waste disposal; 	
	Impact on climate	low	PACT Project to minimize	Ministry of Agriculture

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on biophysical environment</i>			<p>impact on climate the following measures will be taken</p> <ul style="list-style-type: none"> -Use climate smart agriculture approach to minimize greenhouse-gas emissions linked to food production - integration of innovative techniques into the production system, capturing methane from manure, more efficient use of fertilizers and greater efficiency in forage production to reduce greenhouse emission. -Reduce food waste and consumption of emission-intensive food to contribute to cutting the greenhouse-gas emissions of agriculture. -Reduce livestock numbers, more efficient application of fertilizers, and better manure management to reduced; -Use integrated integrated policy approach to climate change, energy, and food security; -Food system will need to transformed be much more resource efficient while continuously reducing its environmental impacts, 	Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<p>including its greenhouse-gas emissions</p> <p>-Increase yields while reducing our dependence on agrochemicals, to reduce food waste, and to reduce our consumption of resource-intensive and greenhouse gas-intensive foods.</p> <p>Use climate Smart Sustainable Agriculture model aims to enhance the capacity of the agricultural systems to support food security, incorporating the need for adaptation and the potential for mitigation into sustainable agriculture and ensure that farmers can contribute to climate change mitigation and at the same time adapt to climate change.</p> <p>-Protecting the ecosystem services essential for maintaining productivity and the ability to adapt to climate changes.</p>	
	Impact on Soil	moderate	The increase in the demand of staple food production could lead to overuse of arable land which	Ministry of Agriculture Project Management Unit /Worada Agriculture

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on biophysical environment</i>			<p>becomes susceptible to loss of soil fertility. Activities like excavation and digging works during agricultural expansion will involve clearing of existing vegetation within the homestead, which may contribute to the loss of plant cover to a certain degree, and this will result in a disturbance of topsoil and cause of micro level erosion. Similarly, farmers may expand their farmland to steep slopes and marginal lands.</p> <p>The following mitigation measures should be taken to minimize impact on soil</p> <p>-Farmers should receive training on how soil fertility can be maintained by changing cropping patterns, growing nitrogen-fixing crops and composting of crop residues to minimize loss of soil fertility.</p> <p>-Areas that are at high risk for erosion due to steep slopes or erodible soils can be alternatively used for forage production or grazing and steeply sloped lands under cultivation can be converted to perennial plantation to minimize</p>	Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<p>soil erosion.</p> <ul style="list-style-type: none"> - Wooded areas with poor soils and steep slopes should be left in their natural state to minimize soil erosion. 	
<i>Impact on biophysical environment</i>	Impact on flora and fauna		<p>The availability of funds may encourage farmers to expand their agricultural land to the adjacent forest areas and wild life habitat. Similarly, smallholder farmers will be tempted to grow crops on steep slopes and riverbanks encroaching to the nearby forest</p> <p>The following mitigation measures should be taken to minimize impact</p> <ul style="list-style-type: none"> - Re-plant trees as much as practical to compensate losses; - Minimize the amount of destruction caused by machinery by promoting non-mechanized methods of construction. - Limit extent of vegetation and tree clearing to only what is necessary and avoid the removal of indigenous species - Indigenous species should be planted in the area where there is no development or disturbed 	Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			<p>footprint.</p> <ul style="list-style-type: none"> - Farmers should be sensitized and be informed of the benefits of conserving forest in terms of maintaining the balance of the ecosystem. - Avoid project activities away from parks and protected areas rich in wild life habitat reserves 	
	Impact on water resources	moderate	<p>Farmers benefitting resources from the PACT Project may buy water pumps to irrigate their land and produce crops, fruits and vegetables. Excessive pumping of ground water for irrigation may cause ground water depletion and drying out of boreholes that are in use by the nearby community.</p> <ul style="list-style-type: none"> - Ground water depletion can be avoided/ minimized by keeping recharge/discharge balance of the catchment areas. The farmers need be educated to have the knowledge on the sustainable volumes of ground water that can be abstracted annually to minimize avoid ground water depletion. <p>The following mitigation measures should be also be taken to</p>	Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on biophysical environment</i>			<p>minimize pollution impacts on surface water</p> <ul style="list-style-type: none"> - Ensure protection of the water body ecosystem by proper handling construction materials during civil works; - Develop and implement emergency response plan for accidental oil and chemical spills; - Contaminated standing water must be immediately removed and treated or disposed of appropriately. 	
	<i>Impact on biodiversity</i>	low	<p>PACT project activities will not generally have adverse impacts on terrestrial and/or aquatic biodiversity. However, there may be a case where big trees that are obstructing farming activities and trees and other vegetation cover could be found within and around the farms. Under such circumstances vegetation clearance to a certain extent will sometimes be required and this may adversely affect the biodiversity of the area to some degree. Similarly some project activities may disrupt wildlife habitat if such sub projects are planned to be implemented near</p>	Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on biophysical environment</i>			<p>national parks.</p> <p>To minimize impact on biodiversity the following mitigation measures should be implemented</p> <ul style="list-style-type: none"> -Preserve tree species of biodiversity importance; - avoid infringing on protected natural reserves and critical wildlife habitats with significant biodiversity. 	
	Impact of the use of chemical fertilizers and pesticides	Moderate	<ul style="list-style-type: none"> - Provide safety training to the operators applying pesticides to eradicate pests and fertilizers to enhance crop yield - Provide Personal protection equipment while handling fertilizers Provide appropriate personal protective equipment (PPE) and training on proper use and maintenance. - Install safety showers and eye wash stations near areas where hazardous chemicals are stored or used; - Use integrated pest management approach to control pests - Use traditional and cultural means to control crop pests 	Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee
	Intensification of	Substantial	-Eradicate mosquito breeding sites	Ministry of Agriculture

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
<i>Impact on socio-economic environment</i>	malaria		such as ponds and stagnant water bodies -Provide impregnated net	Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee
<i>Impact on Socio-economic environment</i>	Exposure to COVID-19 infections	Moderate	<ul style="list-style-type: none"> - Provide sensitization or awareness creation session on COVID-19 for all workers - Engaging in frequent hand hygiene using appropriate techniques; - Implementing regular environmental cleaning and disinfection practices; - Managing excreta (faeces and urine) safely - PPE (long-sleeved gown, gloves, boots, masks, and goggles or a face shield) should always be worn when handling or transporting excreta offsite and great care should be taken to avoid splashing. - Practice proper hand hygiene and provide mask and sanitizer to all workers; - Keep a distance of minimum 2m between workers to minimize transmission of 	-Ministry of Agriculture Project Management Unit /Worada Agriculture Office/Landscape Coordination Committee

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			COVID-19; <ul style="list-style-type: none"> - Body temperature must be measured for all persons entering the site; - Put educational posters and flyers on COVID-19, using local languages to minimize the spread of COVID-19 	
Mitigation measures during Decommissioning Phase				
<i>Impact on Biophysical environment</i>	Dust and odor impact on Air Quality	Moderate	Dust will be generated during demolition of project infrastructures. To minimize Impact of dust generation the following mitigation measures should be taken <ul style="list-style-type: none"> - Minimize dust from material handling, open area sources, including storage piles, by using control measures such as by using covers and/or control equipment (water suppression, cover) - Apply dust suppression techniques such as applying water or non-toxic chemicals to minimize dust from vehicle movements - Manage emissions from mobile sources - Dust may chock the respiratory 	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
			truck of the work force while dismantling concrete structures and this effect can be minimized aeration and the using appropriate PPEs	
	Contamination on Soil and Water bodies	Low	- Avoid waste spillage to the surrounding environment using appropriate waste containment facilities -	Contractor
	Solid Waste Generation	Moderate	- recycle, reuse or sell demolition waste to ensure that materials that would otherwise be disposed of as waste are diverted for productive uses - dispose appropriately to a licensed and designated disposal sit materials that cannot be reused or recycled	Contractor
	Job losses	Low	- Minimize the job loss by properly planning for possible alternative job opportunities, if possible	Ministry of Agriculture/Project Coordination Office
	Noise and vibration	Moderate	- Planning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance	Contractor

Activity/Impact Type	Potential Impacts/Issues	Level of significance	Mitigation Measures	Responsible Institutions for implementing Mitigation measures
Socio-economy impact			<ul style="list-style-type: none"> - Using noise control devices, such as temporary noise barriers and deflectors for impact and blasting activities, and exhaust muffling devices for combustion engines. - Avoid or minimize transportation through crowded community areas - Provide maintenance and proper operation of construction machinery to minimize noise generation; 	
	Occupational Health and safety	Moderate	<ul style="list-style-type: none"> - Workers must be issued with appropriate PPEs and the contractor enforces their use. - Restrict onlookers/scavengers from the site - mentioned in the construction phase above 	Contractor

9. Environmental, Social Climate and Impacts Monitoring Plan

Some of the PACT Sub Projects activities and may not require preparation of social and environmental Monitoring plan. But sub projects like construction water development infrastructures (e.g, irrigation and water supply sub projects) that will require the development of Environmental and Social monitoring Plan. The table below is an indicative plan and must be further developed/updated for specific sub-projects once the specific location of the sub projects is known.

Table 9. 1 Environmental and Social Monitoring Plan

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
Noise and vibration impact on wildlife	Measurement of noise sound level at construction sites	Every day and night during construction work, periodical sound level measurements	Zonal/Woreda environment office	Construction phase	
Impact on air quality	Measurement of NOs, Sulphur dioxide, CO ₂ , Carbon monoxide, dust particle, visibility etc.	Every day during construction work, periodical concentration level measurements	Zonal/Woreda environment office	Construction phase	950,000
Impact due to borrow pits and quarry sites	Visit borrow pits and quarry site to check status and rehabilitation of sites	Every 3 months	Zonal/Woreda environment office	Construction phase	950,000
Impacts of construction waste	Check the removal and appropriate disposal of construction waste	Every 3 months	Zonal/Woreda environment office	Construction phase	950,000

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
Impact of construction on soil quality	Nutrient level of topsoil at the borrow pits and quarry sites after rehabilitation, rate of soil erosion and sedimentation	Every 6 months	Zonal/Woreda environment office	Construction phase	950,000
Impact on flora	Reduction in number and types of trees of biodiversity significance in sub-project areas where construction activities occur	Every 6 months	Zonal/Woreda environment office	Planning and construction phases	950,000
Impact on fauna	Rate of reduction in the number and type of wildlife around construction site	Every year	Zonal/Woreda environment office	Planning and construction phase	950,000
Impact on genetic resources	Rate of reduction in type and number of flora and fauna of genetic significance	Every year	Zonal/Woreda environment office	Construction phase	950,000
Impact on Climate	-Monitoring to ensure full use of climate smart agriculture approach to minimize greenhouse-gas	Every year	Regional environment office /federal Meteorological office	Operation phase	

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
	emissions linked to food production Monitor the use of integrated policy approach to climate change, energy, and food security; Monitor to ensure resources are efficiently to reduce greenhouse-gas emissions				
Impact on groundwater resource	Measurement of groundwater level and yield in wet and dry seasons	Every 6 months	Zonal/Woreda environment office	Construction phase	950,000
Inadequate attention given to the importance of M&E of safeguard management processes.	PME system introduced and integrated.	Quarterly	Zonal/Woreda environment office	Construction and operation phases	2,000,000
grievance redress mechanism stipulated in the ESCMF may not adequately used during the implementation	<ul style="list-style-type: none"> • In-built GRM developed • No of grassroots GRM functionaries trained • No of traditional leaders trained 	<ul style="list-style-type: none"> • Once at end of first quarter • Annually 	Zonal/Woreda environment office	Construction phase	2,000,000
Loss of farm and grazing lands (land acquisition) and compensation	<ul style="list-style-type: none"> • Construction started at non-cultivation period • Number of restored 	<ul style="list-style-type: none"> • Once every four months 	Zonal/Woreda environment office	Planning phase	2,000,000

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
	locations affected by temporary activities • Redress/compensation mechanism put in place				
Economic displacement induced by subproject implementation	• Compensation mechanism adopted • Livelihood restoration measures taken	• Bi-Annually	Zonal/Woreda environment office	Planning n phase	950,000
Noise disturbance and increased vehicle traffic	• Movement restrictions put place • Number of workers provided with safely devices • Number of community consultation held • GRM put in place	Quarterly	Zonal/Woreda environment office	Construction phase	950,000
Occupational health and safety hazards/risks	• No of OHS trainings and no of workers trained • Safety monitoring systems put in place • No of workers who fully comply with PPE use standards • No of health awareness trainings organized	Quarterly	Zonal/Woreda environment office	Construction phase	950,000
Damage to cultural heritage and historic and ritual sites during excavation and	• No of public consultations held • Dykes or other flood reduction structure	• At end of first quarter • Annually	Zonal/Woreda environment office	Construction phase	950,000

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
construction operations	routes designed appropriately <ul style="list-style-type: none"> Heritage handling procedure put in place 				
Infectious and communicable diseases impacts	<ul style="list-style-type: none"> No of health education trainings provided COVID-19 prevention systems put in place No of workers who fully comply with PPE use standards 	<ul style="list-style-type: none"> Annually 	Zonal/Woreda environment office	Construction phase	950,000
Improper campsite impacts	<ul style="list-style-type: none"> Camps located at appropriate location No of SEA/SH prevention trainings provided No of surveillance missions carried out 	<ul style="list-style-type: none"> Once at end of first quarter Biannually 	Zonal/Woreda environment office	Construction phase	950,000
The risk of GBV-Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH)	<ul style="list-style-type: none"> Gender experts assigned GM strategy adopted Code of conducted prepared Code of conducted disclosed No of training sessions conducted Cases if GBV reported and investigated 	<ul style="list-style-type: none"> Annually 	Zonal/Woreda environment office	Construction phase	950,000

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
	<ul style="list-style-type: none"> GRM put in place Gender segregated living space and facilities available M&E system put in place 				
The risk of child labor	<ul style="list-style-type: none"> Number of training sessions held Number of age verified workers LMP prepared and implemented No of M&E missions conducted GRM established 	• Annually	Zonal/Woreda environment office	Construction phase	950,000
The risk of exclusion/discrimination of underserved and other vulnerable groups	<ul style="list-style-type: none"> Government policy on gender and inclusion followed No of mission conducted Cooperation with community structures established No of community consultations 	• Biannually	Zonal/Woreda environment office	Construction phase	950,000
The risk of social tension and conflict	<ul style="list-style-type: none"> Conflict analysis conducted No of community 	• Annually	Zonal/Woreda environment office	Construction phase	950,000

Environmental Impacts	Monitoring Parameters / Indicators	Frequency of Monitoring	Institution Responsible for Monitoring	Implementation Timeframe	Estimate Budget for Monitoring (Birr)
	consultations held <ul style="list-style-type: none"> No of affected community members compensated as per RPF GRM put in place Customary/informal dispute/conflict mediation institutions used 				
The risk of operational concerns due to remoteness and insecurity	<ul style="list-style-type: none"> Security monitoring system put in place 	<ul style="list-style-type: none"> Annually 	Zonal/Woreda Administration office	Construction phase	950,000
Total Amount in Birr					24,050,000

Note: As indicated in Table 9.2 above estimate budget for the implementation of social and environmental monitoring plan is estimated to be **24,050,000 Birr**. Considering the current exchange rate of one USD is 52 Birr, budget required for the monitoring is **462,000 USD**.

10. Performances Monitoring/auditing

The safeguard specialist from the PACT-PCU at the zonal level will closely work with the Woreda Agriculture Office expert, PACT focal person and the Woreda environmental regulatory body. The experts, either as a team or individually, will inspect the implementation of the mitigation measures. During inspections, the expert will verify that the proper procedures are being followed in screening the PACT Sub Project activities and in the implementation of the mitigation measures in the Woreda. They also make field observations to inspect that no negative environmental impacts are taking place anywhere in the project area. Where such impacts may occur, the experts (mainly the Woreda environmental regulatory body officer) will provide advice on further actions, and this will be communicated to the safeguard specialist at the PACT-PCU.

The implementation, monitoring, and supervision of the ESCMF, SA, RPF and GRM activities in general is a joint task of the PACT -PCU (through the safeguard specialist), the BoA and the regional environmental regulatory body bureaus. The three bodies will jointly monitor the effective implementation of the mitigation measures in avoiding or minimizing adverse impacts. The design of the process monitoring, and reporting procedures need to be prepared in parallel with the preparation of the activity plan for the PACT Project. It should be made ready before the commencement of the implementation of the project activities.

Performance monitoring

The results monitoring plan has two components: i) monitoring of the compliance, effectiveness of the ESCMF, SA, RPF and GRM and application of the recommended standards; ii) impact monitoring, i.e., measuring the biophysical and socio-economic impacts of the PACT project. The M&E system of the PACT, which will be facilitated by the PACT-PCU, will provide the required information for results monitoring. Purpose of result monitoring is to support compliance with safeguard policies, to identify the occurrence of any unforeseen safeguard issues, to determine lessons learnt during project implementation, to provide recommendations for improving future performance, and to provide an early warning about potential cumulative impacts.

Performance monitoring requires that:

- The various safeguards instruments (ESCMP, ESIA, IPMP, RPF, GMG,) have been prepared to the required standard, within the required timelines;
- The safeguards instruments have been reviewed and approved by the responsible entities.
- Environmental and social mitigation measures have been/are being implemented and that mitigation measures are effective;
- The community is participating in all stages of the environmental and social management and monitoring processes;

- Relevant Federal, Regional, Woreda and Kebele level officers have been trained in accordance with the capacity building proposals;
- Reports are prepared and delivered as required.

Environmental and Social Monitoring Indicators

Several environmental and social monitoring indicators and parameters can be used to track the performance of the ESCMF of PACT. The goals of environmental and social monitoring indicators include (i) to verify the accuracy of the environmental and social impact predictions; (b) to determine the effectiveness of measures to mitigate adverse effects of projects on the environment and the community; (iii) to determine whether interventions have resulted in dealing with negative impacts; (iv) to verify the required capacity building activities have been done in the identification, planning and implementation of the environmental and social impacts of the project. Some of these indicators and parameters include:

- Number, sex and type of target groups participated on the ESCMF, SA, and RPF training and awareness creation program;
- Inclusive, free and prior community participation and consultation;
- Documentation of community consultation in planning, implementation and monitoring;
- Maintaining of ecosystem services through the adoption different afforestation, reforestation and rehabilitation of degraded lands and SWC Practices;
- Number and percentage of subprojects for which environmental and social issues are integrated into the project cycle;
- Environmental and social screening checklist filled or not;
- Environmental Management Plan (ESCMP) was prepared or not;
- Environmental enhancement and adverse impact mitigation measures mentioned in Environmental and Social Management Plan have been incorporated and considered during project planning, design and site selection;
- Social adverse impact identified and mitigation measures mentioned in Environmental and Social Management Plan, social management plan within SAR and RPF have been incorporated and considered during project planning, design and site selection;
- Compensation effected according to the agreement made;
- Implementation of the mitigation measures identified and planned in the ESCMP, SMP, RPF;
- Fair benefit share of project investment;
- Establishment and functionality of GRM;
- Environmental consequences as a result of places for collection of construction materials (quarry sites, borrow pits);
- Increase in landslide, soil erosion and slope instability due construction of subprojects;
- Impact on water quality and disruption of natural water courses, drainage work and its consequences;
- Documentation at woreda concerned offices and DA offices;

- Impact on critical natural habitats, forests and ecological sensitive areas;
- Conflict in water use right between the upstream and downstream water user community during water source selection (check whether balance is done or not, sufficient water is allocated for both community and ecological services);
- Conflict in water use with in targeted group for water use;
- Developed resource use and management bylaws;
- Documentation of community consultation both the upstream and downstream including their opinions;
- Water quality is suitable or not for irrigation and/or drinking purpose, quantity of water supplied as per the demand; regular supply of water as per the capacity of the irrigation project;
- Water logging and salinity problem because of mis management of irrigation subprojects;
- Impact in the form of pollution to the environment due to PACT interventions (disposal of construction materials or wastes and its environmental and social consequences);

Safeguards Compliance Auditing and Reporting

In view of the significant nature of the impacts of some of the activities of PACT, a robust system of compliance, monitoring and reporting should be in place. Quarter and annual reports should be prepared and pass the hierarchy from Woreda, zonal, regional and to federal levels. The Regional and Federal PCU Environmental and Social Safeguard Specialists are normally required to report quarterly and annually on the performance of the subproject activities on quarterly and yearly basis. Procedurally, the report of environmental and social safeguard and other PACT activities sent by woreda FPs will be consolidated at regional level by PCU M&E specialists with the support of the RPCU safeguard specialists. These quarter and annual reports should capture the experience with implementation of the ESCMF, RPF, SA and GMG procedures. The purpose of the reports is to provide (i) A record of the subproject transactions; (ii) A record of experience and issues running from quarter-to-quarter/year-to-year throughout the subproject that can be used for identifying difficulties and improving performance; and (iii) Practical information for undertaking an annual review.

The reporting formats proposed to be filled by Woreda FP, zonal focal person and regional Environmental and Social Safeguard Specialists are set out in Annexes 9a, 9b and 9c. At Woreda level, quarter and annual report form (Annex 9(c)) will be completed by NRM expert and/or WFP of the project implementing body. The objective of the report is to provide feedback on the activities of and observations on the implemented PACT subprojects and their compliance with the environment and social over the review period in the Woredas. Similarly, at regional level, quarter and annual report form will be completed by regional M&E and safeguard specialist of PCU to provide feedback on the activities of and observations on the implemented PACT subprojects over the review period in the region. The regional environmental and social Safeguard Specialist will prepare quarter and annual reports based on the Woreda report including his/her accomplishment

report by filling the report format (Annex 9(b)) and submit it to the RPCU M&E team and a standalone report to federal PACT-PCU. At the federal level, the quarterly and annual report form (Annex 9 (a)) will be collected from the M&E team and after completion; the Environmental Safeguard Specialist and the Social Safeguard Specialists of federal PACT-PCU will check the regional report and submit a consolidated report with the necessary narration to the NPCU-M&E Case team and standalone report to IFAD. The objectives of the report is to consolidate and summarize the feedback from the regions, assess the overall progress of the PACT subprojects at the national level and see the performance of regions and give feedback to regions on their performances.

Environmental and social auditing

Environmental and social auditing is a process that enables an organization to assess and demonstrate its social, economic, and environmental benefits and application of appropriate mitigation measures. The audit/review involves evaluation to identify compliance of social and environmental aspects of projects (to applicable compliance requirements) and identify implementation gaps, along with related corrective actions. The objectives of environmental and social auditing are twofold, firstly to assess the compliance of implementation to project safeguard instruments regarding the intermediate environment and social impacts of the wider PACT interventions, and secondly to assess the occurrence of, and potential for, cumulative impacts due to project and other development activities. This enables to improve decision making and ensure that the project is environmentally sound, socially acceptable, and economically feasible.

One of the issues in reviewing is, also reviewing of the performance of environmental and social safeguard works annually and quarterly. The annual reviews are intended to be used by project management to improve procedures and capacity for integrating natural resources and environmental/social management into project operations. The reviews will also be a principal source of information to the IFAD supervision missions. Annual reviews of the project and the implementation of the ESCMF will be conducted at the end of each year facilitated by the PACT-PCU. The objectives of the annual reviews include (i) Assess project performance in complying with ESCMF procedures, gaps identified, lessons learnt, and improve future performance, and (ii) Assess the occurrence of, and potential for, cumulative impacts due to project-funded and other development activities.

It is necessary that the audit/review should be conducted by an independent entity (local consultant). The compliance assessment and performance review reports, which will be produced by the independent review body, will be used as a monitoring and review tool to track ESCMP results. The annual review report should be delivered to project management (region and federal), to each woreda office responsible for appraisal, approval and implementation of subprojects and to IFAD as well. In the review process, the PACT-PCU and the Regional environmental regulatory body will play the lead role in coordinating the process with the key stakeholders. The principal

output is a review report that entails the methodology, summarizes the results, and provides practical recommendations.

The responsibility to undertake environmental and social audit is the regulatory body which is the environmental protection authority/agency at various level. However, it can be carried out by the safeguard specialists of the PCU and verification can be done by an independent local and/or international consultants. For the effective performance, the safeguard specialists of the federal and regional PCU, Woreda and zonal Focal persons, and other relevant experts at woreda level, and Development Agents at kebele level should receive relevant environmental and social auditing training.

11. Consultation with the Communities and Major Stakeholders

(a) Lesson learned from Past Projects

Public consultation and participation are essential because they afford potentially affected persons the opportunity to contribute to both the design and implementation of the sub-project activities. The sub-projects would be initiated, planned, designed, implemented, and operated (i.e., demand-driven) by communities and/or farmer groups, who by their very nature, are members of the rural community and therefore, are an integral part of and play a crucial role. Furthermore, it is the local communities who are to claim ownership of this project for it to be successful, and their wealth of knowledge of local conditions are invaluable assets to the project.

Broad Community Support: The major agenda of the discussions include interests of the community in the project, vulnerable and underserved groups, grievance redress mechanisms that the community uses, traditional NRM knowledge and institutions, traditional self-help groups, community participation including females and youth in development activities, capacity gaps, income generating activities, expectations from the project, fears, risks of the project and mitigating measures, and recommendations to the project.

Community members stressed that the changes brought about by the Project in the adjacent Project *woredas* under PADEP -II and the benefits delivered in terms of land rehabilitation and involving in different income generating activities (IGA) caused them to feel that they missed the opportunity. They indicated that they gained lessons about the practical value of the Project from the successes achieved.

The public consultations revealed that the communities were interested in the project due to the successes observed in adjacent *woredas* where PASDEP II is under implementation. The community during the consultation meetings advised the approach of the project should be based on thorough discussion with community elders, religious leaders/fathers, clan leaders and indigenous institutions when the project starts. However, they expressed that they might face loss of access to communal land which they were using for grazing their livestock and collecting firewood. Therefore, they suggested that when the project begins implementation there should be participatory community consultation and they expect wood-saving stoves as well as hand tools and tree seedlings to establish household woodlots.

Their fears during project implementation include restriction of access to resources, wood for house construction, animal grazing and cutting grass, denial of passage of their livestock through the parks to water points, displacement from buffer zones, fear of losing part of their farmland due to SWC structures, harmful pests and weeds harbored by the SWC structures.

Generally, during the discussion with community members in the selected *woredas* community members were not only unanimous in their interest and support for the project, but also are aware of the potential impact of some activities of the project components in terms of possible land acquisition or restriction of access to communal use natural resources. When compared to the kind

of environmental degradation they are facing now, acquisition of small portion of their lands for construction of access roads or temporary restriction of access to communal grazing lands is the little price they are more than willing to pay. However, they said the approach should be with thorough discussion with community, elders, religious leaders/fathers, clan leaders and indigenous institutions before starting implementation of such activities. In contrary when community members asked if they have any concern about the project implementation, they expressed by saying we fear that during implementation, people who are close to kebele administration and active might benefit from the project by neglecting the majority. In addition, they expressed that we might face loss of access to communal land which we were using for grazing, firewood collection or other benefits. Therefore, they suggested that when the project begins implementation there should be participatory community consultation.

Land Acquisition: The subproject/activities need arise from the community and, during planning, the community discusses thoroughly about the location of the activity and land acquisition issues, if needed. When there is a need for land the procedure includes trying to avoid it by looking for other alternatives like changing design or location or otherwise if the landholders are willing to donate the land the activity will be implemented as planned. Accordingly, in few of the PASDEP II watersheds, communities agreed to voluntarily provide a small piece of land in exchange for desired community benefits. Land acquisition will not take place unless it is on voluntarily bases. Based on this in most cases the donation of the land is with compensation or with some benefit arrangements and in rare cases (e.g. access road construction) while widening the existing foot path free donation occurred since the size of the land will be very small.

The data from new woredas about land acquisition for development work also show that communities have experiences in government initiated/financed development works such as irrigation schemes, farmer training centers (FTCs) construction of health posts, clinics, and access road construction which involved some form of land acquisition and restriction of access to natural resources. They mentioned cases where people donated land for construction of access roads for the common good. Also depending on the size of land to be acquired for road construction or the extent of restriction of access resulting from irrigation scheme, through rigorous consultations, mediated by council of elders and kebele administration.

(c) Lessons Learned from PASIDP II

The demand-driven bottom-up approach adopted under SLMP-I and SLMP-II has proved relevant to natural resources management and local development in the rural context in Ethiopia. This development approach which enables communities to have a say in their affairs, determine priorities, actively participate in need identification, project planning, development and implementation is greatly valued by both beneficiary communities and local authorities. However, there still seems to be a great need for enhanced support in the areas of business development and planning, off-farm income generation, market information, and providing alternatives for the

management of identified development problems.

The need to build sustainable institutions at grassroots level can never be overemphasized, since they are crucial for the delivery of service and the attainment of project objectives. The Lessons from PASDEP II show that the quality of project implementation and outcomes were highest where local implementation structures were established, nurtured, and sustained through targeted capacity building work, proper reward and incentive schemes. Moreover, the active engagement of woreda leadership in project management was found to be vital to the success of the project in many of SLMP- I & II woredas. However, frequent change of woreda leaders is a main challenge experienced. Hence, there is a serious need to create a system and institutional memory for effective knowledge generation and management by woreda leaders and sectoral office heads. It is also important to organize regular experience sharing visits between woredas to enable smooth transfer of knowledge and skills across project communities.

-Sustainable land management should be considered an integral part of rural development, and a more holistic approach is needed to support livelihood development in rural communities. Rural households face various constraints to grow their income and make their livelihoods sustainable. The constraints include lack of new ideas and knowledge on income generation; lack of access to new technologies; absence of value addition to increase the shelf life of products for better marketing; and limited access to production inputs and markets. Under SLMP-I, sufficient attention and financial resource were not devoted to promoting livelihood options and enhancing household income. Moreover, savings and credit schemes were not included in SLMP-I. There was improvement in SLMP-II and in RLLP more emphasis given to livelihood promotion, household income growth, and the investment of savings on productive activities.

(c) Consultation with the Project Design Team

The project design team made consultation with the relevant federal institution and the targeted regions between June 25 to July 10, 2022. The data generated by the design team revealed that the proposed project has broad community support. From the consultations community interest in the project was ascertained. The key outcomes of the consultations shared by the design team of experts is as follows:

It was highlighted during the stakeholders' consultations that the inadequate attention was given to the monitoring and evaluation of safeguard instruments in the previous projects and there was a serious drawback in this respect. The level of awareness, knowledge and commitment required to monitor and evaluate the proper implementation of safeguard instruments was much lower than expected. Experience shows that such kinds of gaps make difficult the process of ensuring full compliance with the policy standards of the government and the IFAD. In connection with this, the Environment and Social Management Framework (ESCMF) will have to encompass guidelines, procedures and standards to direct the monitoring and evaluation of safeguard issues

at operational level.

In addition, stakeholder consultation participants noted that external consultants deployed on competitive basis should carry out an assessment of compliance with safeguard issues as part of project impact evaluation. Besides, unannounced random field monitoring visits are important to carry out an objective follow-up and observation of project implementation status. Such type of field monitoring can inform all those concerned about the facts on the ground that they may not always obtain in regular reporting formats that are normally filled in and submitted to meet reporting requirements.

Stakeholder consultation participants underscore that there are serious capacity limitations in the MoA and other implementing agencies in respect to the management of safeguard issues, assigning safeguard specialists and consistently monitoring strict compliance with the safeguard policies/standards of the government and the IFAD SECAP Guidelines. In addition, major concerns were expressed during the stakeholder consultations that the yet-to-be-established PMUs would also have similar practical deficiencies. Hence, as a preparatory measure, it was suggested that funds be earmark for the recruitment and training of safeguard officers.

As part of the capacity building component, PACT will need to organize staff trainings in wide ranging aspect of environmental and social safeguards, the development of the required instruments, implementation and monitoring of compliance, and reporting. With the provision of such capacity building support, PCUs and the safeguard specialists will be better placed to maintain quality standards of the technical advice they provide, the vetting/screening of proposals, as well as in the execution and monitoring of approved sub-projects. Besides, in relation to the description of budget allocations and sources, it is necessary to clearly define in the appropriate project expenditures for safeguard-related costs for trainings, supervision, and technical assistance, the conduct of sub-project specific environment and social assessments, and mitigation measures.

12. ESCMF Implementation Process and Information Disclosure

12.1. ESCMF Implementation process

Attention needs to be paid to the use of sound eligibility criteria that meets the IFAD safeguard policy in selecting and monitoring PACT Program activities to ensure their operational quality. In this regard, one of the important requirements is to ensure the Program activities are in line with the legal requirements of the country and the SECAP of IFAD.

This ESCMF specifies (i) criteria which help avoid activities that might give rise to unacceptable or unmanageable environmental impacts, and (ii) procedures for screening that there will be no significant impacts and for identifying those that may require ESIA. In case an ESIA is required, potential beneficiaries are responsible to undertake such a study and get clearance from the local and regional government authorities. In such cases, the PACT Program activities owner to which resources of PACT Program is channeled is responsible for identifying activities requiring ESIA following an initial screening process, while the competent environmental authorities at the regional administration level are responsible for advising on the required level of ESIA study and for ensuring that it is conducted to an acceptable standard.

Considering the SECAP of IFAD the following are list of ineligible PACT Program activities that encompasses PACT Program activities with any of the attributes listed below:

- PACT Program activities with the potential for significant conversion or degradation of natural habitats if there is not technically and financially feasible alternative and appropriate mitigation measures to put in place.
- PACT Program activities that degrades forest resources unless there is no viable alternative, all due processes under international and national law are complied with, the adverse impacts will not lead to net reduction in the biodiversity value, the adverse impacts will not lead to net reduction on sensitive ecological components, will not lead to significant degradation of the habitat, mitigation plan will be designed to achieve net gains, and long-term monitoring and evaluation program is put in place.
- Any PACT Program activities with the potential for significant damages to cultural property unless identification, valuation, and protection of the cultural resources are possible.
- Any PACT Program activities or activity that does not meet the legal requirement of the country, including gazetted environment, health, and safety legal requirements,
- Any PACT Program activities or activity that is not compatible with the international convention that Ethiopia has ratified,
- Any PACT Program activities or activity, where children under 18 years of age are employed.

The ESCMF process starts with the PACT Program activities. This includes identification of

PACT Program activities s based on beneficiaries' demands and subsequent technical support and advice received from the community to prepare their proposal documents. *Woreda* offices, if required, will conduct desk appraisal of the proposed PACT Program activities s prior to commencing environmental and social safeguards screening.

The screening process will be carried out against the pre-set criteria for eligibility of the PACT Program activities and environmental and social safeguards at national regional and *Woreda* level using the screening checklist. The proposed PACT Program activities plan, screening reports, and recommendations will be complied and send to the Regional Environmental Office for further review and approval.

The Environment Office at the regional and *woreda* level will review the plan of activities, screening results and recommendations and provide decisions of approval, if any design modifications or additional safeguards instruments are required. If program activities of any significant environmental concerns are included, then the plan document will be directed to the attention of the PACT Program activities owner. The final clearance and approval of the plan document will be referred to the respective institutions with all the enclosed environmental and social screening documents and final decision reports.

As stated above various institutions have responsibilities to manage and complete the overall process of environmental management and implementation of this ESCMF. In this regard, relevant regional and *woreda* bureaus and offices, regional and *woreda* Environmental offices, *woreda* administrations, other relevant line ministries are major actors for the implementation of any proposed PACT Program activities in an environmentally sustainable way.

The ESCMF outlines that the successful implementation of the PACT Program activities will require dynamic and multi-disciplinary professionals. Therefore, regular short and tailor-made training courses and workshops will be required to reinforce the capacity and skills of the direct implementers, stakeholders, and beneficiaries during the entire PACT Program implementation period. The existing capacities of the implementing institutions, particularly the *woreda* level to implement the ESCMF and other environmental and social safeguard instruments are low. The program must therefore build the capacity and provide technical support to all relevant implementing agents from National, Regional and *Woreda* levels to capacitate and fill the gaps. To implement the ESCMF the development and implementation of capacity development and training plan is inevitable. This includes training on various topics that helps to undertaking annual review and end-program-evaluation of the impacts of the ESCMF. Apart from the allocation of money, integration, and coordination of various actors both at federal, regional and *Woreda* levels has of paramount importance for the successful realization of the - Program activities in an environmentally sustainable manner. Timely monitoring, evaluation and follow-up need also be considered in an integrated manner in collaboration with the various role players. The following steps should be followed to implement the ESCMF.

The proposed ESCMF process and the procedural step are more focused on PACT Program activities identification and preparation of sub-Program activities in addressing relevant environmental and social issues.

The following steps will be followed in ESCMF implementation process.

Step 1: Identification and Preparation of - Program activities

This first step is an important exercise in creating a common understanding and awareness of the procedures involved among the key actors in the implementation of the ESCMF. It creates a level ground on which effective working relationships could be built in the implementation process.

First, the PACT Program activities are identified in consultation with the beneficiaries and then prepared design documents.

During the early stages of PACT annual plan preparation process including during PACT Program activities selection and prioritization phases, the PACT Program activities focal units and technical committees will have to prepare and familiarize themselves with the fundamentals of the ESCMF process by:

a) Reviewing ESCMF and RPF requirements

The PACT focal units and relevant REPAs in the regions, zones and *woredas* will have to obtain copies of the ESCMF, RPF as well as all relevant Federal and regional laws, guidelines and procedures relating to environmental protection, cultural heritage and resettlement issues. Members of the technical committees and REPAs will also have to complete training requirements for implementation of the ESCMF and RPF of the proposed - Program activities. This will help to ensure that there is good knowledge of ESCMF and RPF requirements at different levels of administration and at the professional and technical staff level.

b) Contacting the Regional Environment Office:

- Provide them with details of the contact of the PACT Office or its parallel and the PCU.
- Inform the Regional EPA that PACT Program activities are being planned that may be classified as being Schedule II or III activities and create awareness on the pertinent environmental issues in relation to federal and regional environmental regulations and guidelines.

c) Identifying of PACT Program activities and interested and affected communities, NGOs, businesses, etc., and informing them of the identified - Program activities and its potential impacts.

Step 2: Scoping/Screening, Review, and Approval of Screening Report

Environmental scoping/screening will be conducted for each relevant PACT Program activities contained in the endorsed annual plan for PACT Program having specified site location. To fulfill the requirements of SECAP, the environmental and social scoping/screening will be conducted in two stages. During the first stage, the PACT Program activities will be scoped/screened using the scoping/screening form and it will be categorized into one of Substantial, Moderate or Low risk. Under the PACT components, it is anticipated that most of the Program activities will fall under substantial, moderate or low risk and no “high risk”. Once the PACT Program activities are scoped/screened and confirmed to fall on or under substantial risk category, then further categorization will be carried based on the Federal/Regional ESIA procedural guideline screening system to identify the schedule of activities into which this Program activities will fall (i.e. Schedule I, II & III). Based on the nature and scale of Program activities it is expected that most will fall under schedule II or below (by national/regional ESIA procedural guideline) which may require partial or no ESIAs. In addition to the national ESIA guidelines, SECAP will also be used in categorizing PACT Program activities depending on their level of impact.

The environment focal person in the PFU initiates the process by completing the form contained in environmental Scoping/Screening Form. The aim of the scoping/screening form is to assist in identifying potential impacts based on field investigations in the site where the Program is proposed to be implemented. The scoping/screening exercise should also consider the cultural heritages and resettlement aspects of the Program activities before deciding the site. The environment focal person can seek assistance from other members of the Woreda Office technical committees while carrying the environmental screening.

This Scoping/Screening Report will describe the following items:

- The proposed Program activities and its potential impacts.
- Characteristics of the location (sensitivity of the areas),
- Size (small, medium, and large scale),
- Degree of public interest,
- Institutional requirement, environmental enhancement, and monitoring considerations,
- Categorization of the Program activities (Substantial, Moderate, Low risk and schedule I, II or III)

The outcome of environmental scoping/screening will be classifying the proposed Program activities into one of Substantial, Moderate, or low Categories and Schedule 1, 2 or 3 activities. The issue of vulnerable groups will be considered when the Program activities are classified as Substantial, Moderate, or low risk activities. The completed scoping/screening form will be sent to the regional environment office for internal checking and approval. It will then be submitted to the Zonal or *Woreda* office with an official application for review and approval. Scoping/screening reports should not have “Conflict of Interest” of communities in the process.

The Zonal or *Woreda* offices will review the Scoping/Screening Report and will:

- Accept the document - with conditions relating to implementation.
- Accept the documents with recommended amendments. or
- Reject the document with comments as to what is required to submit an acceptable Screening Report.
- Following the approval of the PACT Program activities environmental screening report by REPA, the Program activities will be fed into one of the following processes based on its approved Categorization.
- Schedule 1 Program activities are fed into the standard ESIA process and will need to prepare full ESIA study report. It is mostly unlikely for PACT Program activities to fall in schedule I.
- Schedule 2 PACT Program activities will require a partial or preliminary ESIA and will necessitate the inclusion of environmental and social mitigation and enhancement measures in the design and implementation of PACT Program activities.
- Schedule 3 PACT Program activities are not subject to environmental assessment as no potential impacts are anticipated. Thus, no further action is required. However, the environmental guideline for construction contractors will have to be providing in all cases.

The results of the Scoping/Screening Report whether a full ESIA, Partial ESIA, RAP will be included in the PACT Program activities Application Form. Considering the nature, type and scale of PACT Program activities, it is most likely that Program activities will fall under Schedule II which require preparation of Partial ESIA. The next step in the ESCMF process is to proceed to the next actions to fulfill the requirements based on the screening categorization, which is outlined in Step 3 below.

Step 3: ES Instruments Preparation, Review, and Approval

If the Program activities is Schedule I, then it requires a full ESIA which should be prepared by independent consultant. For the Schedule II - Program activities Environmental and Social Assessment could be prepared by PFU or with the help of an independent consultant. Schedule II PACT Program activities are required to prepare “Preliminary ESIAs in which the depth of its information requirement can be defined in consultation with the relevant regional environment office

Generally, the scope of ESIA for schedule II PACT Program activities may vary, but it is narrower than that of Schedule I ESIA that examines the PACT Program activities’ potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance.

Typically, a partial ESIA doesn’t require policy, legal, and institutional framework analysis, baseline data and analysis of alternatives as a full ESIA. It will, however, assess in detail ES risks and impacts, recommend mitigation measures, and include ESCMP and monitoring plan.

During the study of the full Environmental Impact Assessment and preparation of Environmental

Management Plan the environment focal person together with other members of the PFU and technical committees will have to ensure the quality of the assessment by conducting interim review of draft full/partial ESIA report. The full/ partial Environmental and Social Impact Assessment and Environmental and Social Management Plan will then be presented by the PFU for further internal review and approval. The full/Partial ESIA will be submitted to the relevant REPA with an official application for review and approval. Finally, the partial ESIA will be send to IFAD for no-objection and further disclosures.

It should be noted that for Substantial-Risk PACT Program activities, as well as situations in which the client has limited capacity, the client will retain independent specialists to carry out the environmental and social assessment.

The relevant Regional, Zonal, or *Woreda* Environmental Protection offices will review the partial ESIAs and ESCMPs submitted to it by the PFU office. The purpose of review is to examine and determine whether the full/partial ESIA and ESCMP are based on adequate assessment of the environmental effects of the PACT Program activities under consideration and of sufficient relevance and quality for decision-making.

Reviewing may include considerations of the adequacy of:

- Compliance with the "approved TOR".
- Availability of the required information.
- The examination of alternatives, assessment of impacts, appropriateness of mitigation measures and monitoring schemes as well as implementation arrangements.
- The use of scientific and analytical techniques.
- The extent of public involvement and reflection of PAPs concerns. and
- If the report is presented to decision makers at Regional, Sectoral, and Local levels.

The Regional, Zonal, *Woreda* Environmental Protection Authority will review the partial ESIA and ESCMP and will:

- Accept the document - with conditions relating to implementation.
- Accept the documents with required and/or recommended amendments. or
- Reject the document with comments as to what is required to submit an acceptable ESIA and ESCMP.

Moreover, it also worth to note that IFAD will review the adequacy of national environmental and social requirements relevant to the PACT Program activities and assess the capacity of the client to manage the environmental and social risks and impacts. If the IFAD is not satisfied that adequate capacity exists on the part of the Client, all Risk and as appropriate, Substantial Risk will be subject to prior review and approval by IFAD until it is established that adequate capacity exists with the

client. On the other hand, if the risk rating of ACT Program activities increases to a higher risk rating, IFAD will require the client to apply relevant requirements of the ESSs in a manner agreed with the IFAD. The measures and actions agreed will be monitored by IFAD.

The review and approval process of full ESIA report of - Program activities if there exists any under PACT will follow the same procedure with the exception that the scope is broad encompassing broad range of environmental issues that will have significant environmental and social impact on the community and the environment.

Step 4: PACT Program activities Implementation and Supervision

When approval has been given to the partial ESIA/ESCMP implementation of mitigation measures systemic follow-up is needed for the ACT Program activities. Monitoring the compliance of PACT Program activities implementation with the mitigation measures set out in its ESCMP will be carried out by the environment and social focal person of the PFU who is responsible for environmental and social management. The PFU and the environment focal person will have the primary responsibility for carrying out this monitoring by regularly visiting the PACT Program activities and advise corrective measures to the contractor as required.

The implementation of the recommended mitigating measures will also be monitored by the Regional and/or Zonal Environmental offices and internal M&E monitoring unit of PACT from time to time. The Environment and social focal person will have to collaborate in the planning for external compliance monitoring inspections that will be conducted by the relevant Regional and/or Zonal environment offices.

Compliance monitoring comprises on site-inspection of construction activities to verify that measures identified in the ESCMP are included in the clauses for contractors are being implemented. Compliance monitoring and supervision of the ESCMP covers:

- Determining whether the PACT Program activities is being carried out in conformity with environmental safeguards and legal agreements.
- Ensuring that the anticipated impacts are maintained within the levels predicted.
- Identifying problems as they arise during implementation and recommend means to resolve them.
- Seeing that the un-anticipated impacts are managed and or mitigated before they become problems.
- Recommending changes in PACT Program activities concept/design, as appropriate, as the PACT Program activities evolves or circumstances change. and
- Providing information for a periodic review and alteration of the environmental management plan and enhance environmental protection through good practice at all stages of the PACT Program activities.

It is, therefore, necessary that Environmental and Social Management Plan, Cultural Resources Management Plan or Resettlement Action Plan is regularly supervised, monitored, and reported to regional environment office, to the client and IFAD together with other progresses of the PACT Program activities.

Step 5: Environmental and Social Safeguards Compliance Evaluation Phase

Once implementation of the PACT Program activities has started, regular supervision missions should be carried out by the PCU and the regional environmental offices on a quarterly, biannual and annual basis and environmental and social safeguards compliance reports must be prepared and submitted to the environment region offices, the client and to IFAD for review and guidance.

Step 6: Annual Review and Audit Phase

ESCMF implementation will also be supported by conducting annual environmental and social performance audit that will be carried out by a third party. The third-party annual environmental and social performance audits will be conducted on the PACT activities to evaluate the overall implementation of the ESCMF. The annual environmental and social performance audits will be the principal source of information for improving environmental and social performance. It is expected that these reviews will be carried out by an independent local consultant or other service provider that is not earlier involved in the formulation of the PACT Program activities. The purpose of the reviews is of two-fold:

- To assess compliance with ESCMF procedures, learn lessons, and improve future ESCMF performance. and
- To assess the occurrence and potential for cumulative impacts due to PACT Program activities and other development projects.

12.2. Information Disclosure

In compliance with the IFAD SECAP guidelines and the Government of Ethiopia EIA Proclamation No. 299/2002, public consultation on and disclosure of safeguards instruments are mandatory. Before PACT subprojects are approved and before the initiation of physical works, the relevant safeguard documents (ESCMP, SEP, LMP, IPMP, ESIA, RAP) need to be finalized as required. The documents must then be made available for public review at a place accessible to local people and in a form, manner, and language the communities can understand. The general public should participate and be consulted at all levels of environmental and social assessments including eligibility checks, screening, scoping, impact identification and rating. The environmental and social safeguard instruments will be printed and made available at grassroots government offices (woreda Information Centers, and other relevant institution offices). Hard and soft copies will be distributed and be publicly disclosed in the MoA websites and at the IFAD website.

Ministry of Agriculture which is the implementing agency of the PACT will make copies of the ESCMF available in selected public places (possibly at National and Regional relevant government offices) for information and comments. The Proposed project activities will be announced through different forms of media. The announcement will include a brief description of the project references as to where and when the ESCMF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the project owner and local NGOs on all Substantial risk sub-projects, Bureau of Agriculture at the regional level shall provide a relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.

Public Disclosure Plan: Following the public consultation, all comments and briefs will be analyzed and report will be published and made available to the relevant stakeholder's and to interested bodies upon request.

In line with this, the ESCMF will be available at the relevant institutions at all levels and be publicly disclosed both in the relevant country offices and at the IFAD's website. Copies of consultation reports should be made accessible through public relation sections of relevant sectoral offices, radio announcement and press releases.

Any ESCMPs and other safeguards instruments that will be prepared for the proposed project will also needed to be disclosed to the public. Copies of the ESCMPs should be made available to communities and interested parties in accessible locations through local government authorities, (e.g. *Woreda* offices) and to local people and in a form, manner and local language the community can understand. Similarly, copies of the ESCMPs should also be provided to the implementing agencies. This will ensure record keeping of all activities implemented under the ESCMF and ensure that third party audits, if required, have adequate information when undertaking annual environmental and social audits at a later stage of project completion.

Disclosure of Documentation: IFAD policy on the disclosure of documents adopted the principle of "presumption of full disclosure" The sharing of draft and final ESIA's and other relevant documents with project stakeholders and interested parties will be subject to the above-mentioned principle. As such, the documents will be disclosed, when available, in a timely manner prior to project appraisal at the quality assurance stage on IFAD Website and in an accessible place or at the project-affected area, in a form and language understandable to project-affected parties and other stakeholders, for the purposes of keeping them informed and providing them meaningful feedback about the sub project. Local disclosure of Project information to the community should be in local language that can be easily understood by the community.

13. Grievance Redressing Mechanisms (GRMs)

Introduction Project implementation may be a source of grievance. Grievance may be during construction, operation, compensation payment modality, pollution, resource use conflict etc. The government of Ethiopia has a system of addressing grievances using the Ethiopian Ombudsman Institution and Public Grievance Hearing Offices (PGHO) at all levels of the decentralized administration. A ‘grievance’ is a perceived injustice evoking an individual’s or a group’s sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. In effect it could be either perceived or actual issue, concern, problem, or claim that an individual or community group wants a project or contractor to resolve. Grievance related exercise include questions, requests for information, or general perceptions that may or may not be related to a specific impact or incident. If not addressed to the satisfaction of the person or group sensed it, concerns may well become complaints, and will lead to a loss in the projects to operate or failure for successful delivery of the intended development goal of the project. Emerging trends toward the project shall be identified and addressed through community engagement before they escalate. Complaints or grievances including all allegations of specific incidents and of any damage, impact or dissatisfaction resulting from projects or contractor actions, whether perceived or actual should be identified, documented, and addressed properly. Good practice in environmental and social performance of projects required the implementation of feedback mechanisms to enable stakeholders to provide input and to make the community being heard for any grievance developed during the project. To materialize this project needs to have participatory and culture friendly grievance mechanism. In line with this fact a Grievance Redress Mechanism will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant is informed of the outcome. It will be applied to all complaints from affected parties. It will provide a formal avenue for affected groups or stakeholders to engage with the project implementers or owners on issues of concern or unaddressed impacts. Concerns will be addressed promptly using an understandable and transparent process that is culturally appropriate and readily acceptable to all segments of affected communities, at no cost and without retribution. GRM should be appropriate to the scale of impacts and risks presented by a project.

Objectives of GRM

The GRM should be culturally appropriate and, as far as possible, dependable with existing mechanisms both at community level and in the administrative system/contractors. The project will establish a Grievance Redress Mechanism (GRM) with the following objectives:

- To provide project-affected peoples (PAPs) with easily accessible procedures for settlement of complaints.

- To provide a reliable way for the project to address and resolve disputes.
- To contribute to building trust between the project, PAPs and other stakeholders.
- To avoid illegal proceedings.
- Ensure transparency and accountability throughout the implementation of project
- Resolve any emerging environmental and social grievances in project areas.
- To promote relations between the project implementers, executors, and beneficiaries

Grievance Resolution Committee (GRC)

In view of the above, a Grievance Resolution Committee (GRC) shall be set up by the PCU at Woreda level to inform and coordinate the relevant stakeholders and to provide resources for resolution. The Committee will maintain all records from complaint to final decision for future reference. It will also ensure that public participation and consultation is always a part of the process to promote understanding and prevent unnecessary complaints and disputes. The GRC will be mandated to deal with all types of grievances arising at the community level due to the proposed project and its subprojects. The GRC members shall be comprised of qualified, experienced, and competent personnel who will be able to interact and gain the trust of the complainants in the local communities. The GRC should consist of both male and female representatives. They should be able to accept complaints, provide relevant information on the process, discuss the complainants' situations with the concerned person, and explore possible approaches for resolution. There is a need for clear standard procedure and plan of how to register (how, where, and when) grievance and this GRM shall be disseminated within the project implementation level with focuses to communities at Kebele and Woreda where for concerns/grievances of the project are expected to be presented due to its size of the proposed intervention and site specificity of the activities. When affected or concerned persons present their grievance, they expect to be heard and taken seriously so Woreda and Kebele level project stakeholders, particularly kebele focal person is required to inform the project GRM system and provide adequate information.

Grievance Redress Record and procedure

The grievance resolution process includes four key stages – (i) Receive: Relevant personnel in each project site (SC and Contractor) will be required to accept formal grievances and ensure avenues for lodging grievances are accessible to the public and affected persons. Avenues will include face to face with the contractor, government representative or community representative, by telephone or in writing to the above or via email. (ii) Investigate/Enquire; information may be gathered from any other sources to describe the cause and effects of grievance more clearly, its level of urgency or severity and its relationship to subproject. Investigations may include site visits and meetings to determine: the scale and impact of the grievance and what options there may be for appropriate responses or resolutions. (iii) Respond and Resolve: The response should communicate findings of the investigation and resolution and seek approval from the Complainant. If the Complainant is satisfied with the outcome, then the grievance is closed out and they provide

their signature (or fingerprint) on the agreement as confirmation (iv) Follow up/Close Out: A grievance is closed out when no further action can be or needs to be taken. All grievances should be closed out within the initial 30 days or as soon as possible thereafter and after all reasonable attempts to resolve the grievance have been attempted. The received complaint has to be documented in writing using a standard format containing specific time plan for resolving conflict/complaint. After registration using standard format, it should be 26 | Page examined; investigated and remedial actions shall be taken. A GRM Register will be maintained at each Regional PCU by the Regional Project Coordinator based on the Complaint Forms, records of meetings and decisions and Appeal Forms received from the Woreda FPs will comprise a hard copy file and an Excel spreadsheet including the type of complaint, location, date of complaint and decision, actions to address the complaint, and outcome.

The GRM Process

- At community level, any person who has complaint regarding the Project activities can raise these issues with the Kebele-level contact point (Focal Person (FP), normally the Kebele Manager). All received complaints and responses will be documented and copies sent to the Kebele administration and Woreda FP.
- If the issue cannot be resolved by informal discussion between the project and the complainant, the complaint can be brought to the Kebele Development Committee (KDC). The complaint and decisions made will be documented and copies sent to the Kebele administration and Woreda GRC.
- Complaints unresolved at Kebele level will be brought to the attention of the Woreda GRC. It is recorded in a Logbook for review, further investigation and decision by the GRC.
- The complaint that is beyond the Woreda GRC is reported to the Woreda Project Steering Committee for final decision and report sent to the Regional Steering Committee through RPCU.

Grievance channel for Gender Based Violence (GBV)

Gender-based violence (GBV) is an attack on the security, voice, and well-being of individuals, and of whole communities. Preventing GBV requires collaboration and action across different groups including contractors, project staff, government partners and communities. In this regard, the project will make special focus on ensuring the safety and security of women, children and other vulnerable groups. It also involves monitoring of regular and dynamic engagement with community leaders and stakeholders at Woreda level. Specific actions may include the following:

- Undertake periodic awareness around GBV issues among staff, contractors, and other stakeholders.
- Develop a methodology for assessment of risk of GBV in the project;
- Build and improve project staff and client capacity to address risks of GBV through the development of guidance, training, and continuous learning activities and materials

- Develop a clear internal Reporting and Response Protocol to guide project staff and supervisors in case of incidents
- Develop Codes of Conduct for contractors and Supervisors with prohibitions against GBV,
 - Strengthening consultation considerations and recommendations for grievance redress mechanisms.
- Ensuring that the project provides help to survivors of GBV

Traditional Grievance Redness Mechanism

The unwritten customary law is exercised by the well-experienced elders who transfer the informal rules from one generation to another. The elders play the role of mediating, arbitrating, managing and resolving the conflict. Thus, the community head allows only wise elders to be involved in the resolution process. It would be easier to manage the conflict because the conflicting parties have a common cultural background and are governed by the traditional law. The elders that will be selected is based on their capacity to present convincing arguments, honesty, their knowledge of the values and traditions of the society, neutrality and their personal experience in responding to the difficulties they face.

14. ESCMF Implementation Arrangement

The Environmental, social and climate risk management is one of the program support sections of the PACT Program with the aim to ensure that Program activities to be implemented are not only technically, economically and financially viable, but are also environmentally friendly and socially acceptable by the community participating in this Program. For the attainment of the PACT Development objective and ensuring environmental and social sustainability the appropriate institutional arrangement will need to be established. The organogram below shows the overall institutional arrangements proposed to manage the environmental, social and climate risks and impacts that may result due to the implementation of PACT Program.

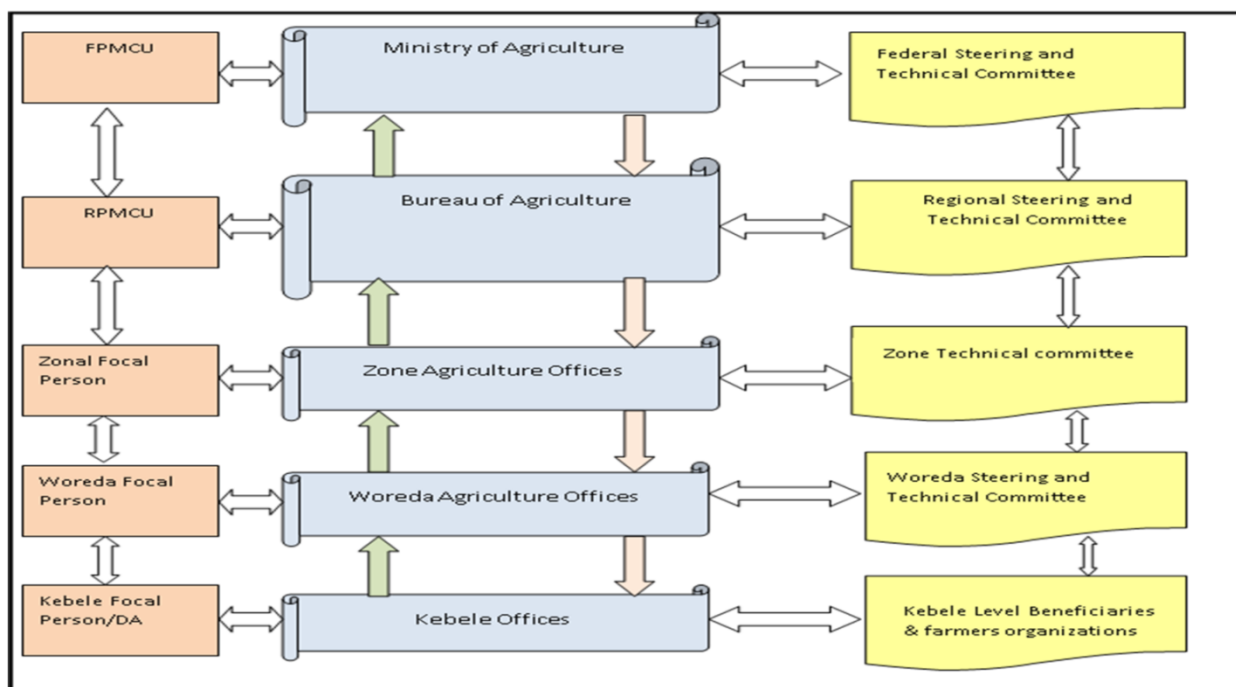


Figure 14. 1 Institutional arrangement for the implementation of PACT Project

FPMCU= Federal Project Management and Coordination Unit; RPMCU= Regional Project Management Coordination Unit

Federal Program Management Coordination Unit (FPMCU): The main organization responsible for the implementation of the ESCMF at federal level is the Ministry of Agriculture (MoA) through its PMU. MoA, will play a leading role in ensuring the proper implementation of the ESCMF. It will guaranty that the applicable Government of Ethiopia (GoE) rules and regulations as well as IFAD safeguard policy requirements are enforced. At federal level, the client will deploy qualified environmental and social safeguards specialists dedicated for this project who will oversee the climate, environmental and social risk management issues.

The FPMCU shall recruit one environmental and social safeguard specialist and gender one gender specialist who will work closely with regional safeguard specialists, zonal and woreda focal persons assigned in each of the PACT implementing regions. The environmental and social safeguard specialists and gender specialist shall consolidate all compliance and performance monitoring reports collected from the regions. They will assist in monitoring and closely following up of the effective implementation of the Environmental, Social and Climate Management Framework (ESCMF), Social Assessment (SA), Resettlement Policy Framework (RPF), Labour Management plan (LMP), Stakeholder Engagement Plan (SEP) and Gender Mainstreaming Guideline (GMG). Besides, they provide the required technical backstopping; review Program activities, project plan, design, costs and baseline documents to ensure environmental, climate and social factors and mitigation measures are incorporated; prepare monthly and annual work plan; organize annual review programs; collect and consolidate progress report and send the consolidated report to development partners on a quarter base.

Environmental Protection Authority, at federal, regional and Woreda level, are responsible for project screening/approval of categorization as well as approval of relevant studies such as ESIA, ESMP. Therefore, the federal and regional PMU will collaborate with the environmental protection authority for the smooth implementation. The main areas of collaboration includes: reporting template and periodicity of reporting, compliance monitoring and auditing as well as capacity development.

Regional Project Management Coordination Unit (RPMCU): The RPMCU will designate/recruit one environmental and social safeguards specialist and Gender specialist who will follow the overall implementation of the LMP, SEP, ESCMF, SA, RPF and GMG at woreda, kebele and community level. The regional safeguards team shall undergo training in environmental and social safeguards and gender mainstreaming aspects during Program activities preparations, review and approval of sub projects. They will closely work with the regional infrastructure and watershed specialists of the region during the planning and construction time to avoid the occurrence (proactive engagement) of impacts on the environment and the community. They will collect the performance of safeguard activities from the woreda; undergo a detail analysis on the quality of reports, and the implementation of mitigation measures on a specified period. They will also review together with the regulatory institution or delegated regulatory authority ESIA reports referred to the region for ESIA. A consolidated plan will be sent to the environmental, social safeguard specialist and gender specialists to the federal project management coordination unit through the M&E unit of the regions.

Zonal Focal Person of the Project: The PACT Program at zonal level is led by a steering committee. The Focal person at the zonal level is responsible for the overall coordination and monitoring of the environmental and social safeguard and gender related activities at woreda level. He/she will compile and consolidate quarter and annual implementation progress reports submitted

by the woredas and will send to the RPMCU. He/she will facilitate the implementation of the review process of the ESIA studies of those sub-project activities received from woredas to the zonal environmental regulatory body for further evaluation.. Zonal focal persons will also support woredas in properly directing the steps that will be followed while conducting the ESIA studies by own human resources at woreda level and/or by a consulting firm licensed by the Feral environment office or other international entities entrusted for the purpose.

Woreda Focal Person of the Project: The woreda focal person is responsible for coordinating the different stakeholders in the planning and implementation of the PACT Program activities at grass root level, kebele and community level. He/she supports kebele Development Agents in the identification and screening of Sub program activities. However, for high and medium risk sub-Project activities he/she should request support from safeguards experts either at Zonal or regional levels after screening results. He/she will follow the implementation of mitigation measures that are planned in the ESCMP, , LMP, SEP and RPF. Besides, he/she will play a significant role in facilitating the Woreda technical committee members to play their respective roles in the evaluation of the anticipated potential environmental and social impacts and implementation of the mitigation measures by directing to their concerned sector offices. He/she prepare and submit a consolidated report on the performance of the environmental and social safeguard activities along with the M&E reports.

Kebele level implementation: identification and initial environmental and social screening of sub-Program activity of the PACT starts from community and kebele level which are eligible to participate in the implementation of sub-project activities. Kebele Watershed Team (KWT) and Community Watershed Team (CWT) at kebele and community level, respectively, are responsible for the follow up and timely monitor the implementation of the site specific LMP, SEP and ESCMF and, RPF and ESCMP if applicable. Development Agents at kebele level (Natural Resource Management, Crop Development, Livestock Development, Irrigation and/or others) have the responsibility to ensure the overall implementation of the LMP,SEP,ESCMF, SA and RPF.

The table below summarizes the roles of institutions responsible for the implementation ESCMF.

Table 15.1 Summary of institutions responsible for the implementation ESCMF

No.	ESCMF Implementation Body/Staff	Role and Responsibility	Implementation Level (Federal/Regional/woreda/kebele)
1	Ministry of Agriculture (MoA/FPM CU	<ul style="list-style-type: none"> • Executing PACT Program with the functions of overall coordination, management, and supervision. • Ensuring the proper implementation of the ESCMF; 	Federal level

No.	ESCMF Implementation Body/Staff	Role and Responsibility	Implementation Level (Federal/Regional/woreda/kebele)
		<ul style="list-style-type: none"> Guarantying that the applicable GoE rules and regulations as well as IFAD requirements are enforced. 	
2	Federal Steering Committee (SC)	<ul style="list-style-type: none"> Oversight of the implementation of the PACT Program ; Providing strategic direction and policy guidance in Project implementation; Approving annual plans and budgets; Ensuring high level inter-ministerial/agency coordination and collaboration, harmonization and alignment among donors. Review the progress of the project and evaluate work plans on semi-annual and annual bases. 	Federal level.
3	National Project Coordinator (NPC)	<ul style="list-style-type: none"> Oversees and executes the implementation of project activities, including safeguards, monitoring and evaluation and reporting. 	Federal level
4	ES Safeguard Specialist	Overseeing the environmental, social and risk management issues. Follow-up the implementation of the ESCMF.	Federal level
5	Regional Agricultural Bureau/Projects Management Unit (RPMCU)	<ul style="list-style-type: none"> Overall technical level coordination among Implementing Agencies (IAs); Annual activity planning; fiduciary management; and procurement; Safeguard issues; liaising with federal stakeholder groups; and project communication; Consolidation of M&E and 	Regional level

No.	ESCMF Implementation Body/Staff	Role and Responsibility	Implementation Level (Federal/Regional/woreda/kebele)
		other reporting; <ul style="list-style-type: none"> Strategic staff capacity-building and mobilization. 	
6	zonal agricultural office/focal person	Serving as member committees at the zonal grass root/community level in the supervision and implementation of the ESCMF.	Zonal level
7	<i>Woreda focal person/kebele Administration/</i>	Participate in the implementation of ESCMF at the woreda/kebele/ community/grass root levels and in the supervision of the implementation of the ESCMF.	Woreda/ local level.
8	Woreda Compensation and Resettlement Committee	Overseeing proper implementation of the RPF, RAP or ARAP proposed for PACT subprojects.	Woreda level
9	Compensation committee at the kebele level	Evaluate compensation for the assets lost during implementation of sub projects at the grass root levels	Kebele level

15. Capacity Building

According to the feedback obtained during the consultation with stakeholders and communities capacity building of experts is one of the intervention areas that need to be addressed for the successful implementation of the PACT Project. It is crucial to plan and execute general training and awareness/sensitization programs and specific technical trainings for relevant stakeholders expected to participate at various level of the subproject implementation (from planning through implementation to operation and decommissioning phases. According to the feedback obtained from consultation with the major stakeholders there exists capacity gap especially at regional and woreda levels to properly implement the ESCMF of the PACT Project. Special initiative is therefore needed to address the capacity issue o implement the proposed mitigation measures proposed in the ESCMF Report. To fill such capacity gap the following technical trainings and awareness raising activities are planned to be provided.

Technical training on ESCMF and RPF will mainly focus on the technical staffs that will be involved in directly applying the ESCMF and RPF procedures. It includes the experts at PACT-PMU at federal level, member of technical committees, PACT Steering Committee members etc. The training will focus in explaining the details of the national and IFAD environmental requirements and the procedures that need to be fulfilled to comply with it. Implementation of the ESCMF and RPF including all aspects of the IFAD DECAP environmental management, EIA, public consultation, and integration of environmental management into development planning will be the center topics for the training. The training would also cover skills upgrading refreshment topics such as, environmental, and social screening and categorization processes, EIA review and quality assurance, environmental audits, and environmental guidelines. The training can be offered to the target groups at federal, woreda, zonal or community levels.

The technical support for the implementation of ESCMF will need the preparation of a detail plan and budget estimate to implement the plan. For effective implementation of the LMP, SEP, ESCMF, and RPF it is necessary to provide capacity building and technical backstopping to experts at federal, regional and *woreda* and community levels. Capacity building is critical in the implementation of ESCMF and environmental and social safeguard works. Capacity building includes both human and material resources. Human resource capacity building enables implementers and stakeholders in the regions and woredas to increase understanding of the project nature, increase skills and also access to information. The technical backstopping includes training and capacity building need assessment, monitoring of the implementation of mitigation measures and utilization of the different tools and of checklists indicated in the ESCMF Report

Technical training is proposed to be provided to the experts participating in the

implementation of ESCMF .The following topics will be covered under the proposed technical training .

- **Introduction to Environmental and Social Management Framework.** This section will introduce participants to the theory and application of ESCMF as a decision-making tool. It will outline the principles of ESCMF and provide clear definitions of terminologies applied on environmental management systems practice (e.g. screening and scoping, impacts [negative, positive, cumulative] natural resource base (water, soil, land, biodiversity, air, etc.), social baseline (employment, social, health, literacy etc.) and mitigation and monitoring. It will also provide guidance on the criteria required for the development of an effective ESCMF in practice.
- **Ethiopian Environmental Legislation:** This section will discuss the application of Ethiopian legislation in terms of the relevant environmental and social laws and policies which apply to activities under the PACT.
- **Screening of PACT sub-projects:** A list of potential activities to be financed under the projects will be discussed. Application of the screening checklist will be explained using case studies.
- **Impact Identification:** Potential impacts related to various types of activities will be discussed, in terms of their significance (adverse or minimal, positive or negative), magnitude (long term versus short term), and impact category (localized or cumulative).
- **Mitigation measures and Implementation Monitoring:** Mitigation measures and monitoring as they apply to various types of project activities will be discussed, in terms of their application, cost and feasibility. Training will also be provided on the importance of Monitoring to gauge the effective implementation of the mitigation plans.
- **Responsibilities for Planning and Reporting:** For each target audience, responsibilities for environmental and social management will be discussed as they relate to PACT subproject implementation. This will include responsibilities for planning, management of impacts and mitigation measures, monitoring, partnerships with NGOs and technical service providers, and the reporting of outcomes achieved in implementing the mitigations as well as monitoring plans.
- **IFAD Social, Environmental and Climate Assessment Procedure (SECAP):** Detailed application of the Social, Environmental and Climate Assessment Procedure relevant to the PACT;

There is also the need to create awareness among the communities that will participate in the implementation sub projects. During the awareness creation campaign briefing will be done by the project owner on the following topics to inform the community about the project.

- Nature of the sub projects, anticipated impacts and mitigation measures;
- Payment of compensation for the lost assets;
- Grievance redress mechanism;
- Health and safety;
- Covid 19, GBV and other sexually transmitted diseases;

The following technical trainings and capacity building to create awareness among the community is proposed to be implemented during the life time of the project.

Table 15.2 Type and duration of trainings

Types of trainings	Target groups	Training topics/ aspects of safeguard	Potential Trainers	Duration and Time of training
ToT (federal level) 20 participants	Staff of PMU at Federal level	<ul style="list-style-type: none"> • EA, ESIA • OHS • Environmental and social standards • Environmental safeguard policies of the IFAD and Ethiopia • ESCMF, SA including social management plan and RPF implementation process • Monitoring of mitigation measures, • Review and reporting procedures, • Environmental and social auditing, 	Consultants;	1 week, before the planning period and Midterm period
ToT 20 participants	Technical Staff of MOA	<ul style="list-style-type: none"> • Integrated watershed and landscape management planning, • , ESCMP, ESIA, Environmental and social standards, OHS • Environmental policies of the country 	• Consultants	1 week, before the planning period and third year of the project

Types of trainings	Target groups	Training topics/ aspects of safeguard	Potential Trainers	Duration and Time of training
		<ul style="list-style-type: none"> • ESCMF, SA including social management plan and RPF implementation process • Review and Reporting procedures • Implementation of mitigation measures • Grievance redress mechanism • Environmental and social auditing 		lifecycle
ToT training (Woreda level) 10 participants	<ul style="list-style-type: none"> • MOA staff, • Grassroots steering Committee members, 	<ul style="list-style-type: none"> • Overall program objectives and activities, • EA, ESCMP, ESIA, ESSs, • Environmental policies • ESCMF, SA and RPF implementation process • Review and Reporting procedures • Implementation of mitigation measures • Grievance redress mechanism • Environmental and social auditing 	, MoA experts	1 week and before the planning period
Skill development (on environmental and social safeguard)	<ul style="list-style-type: none"> • PACT Steering Committee members, • Woreda/Kebele cabinet members, 	<ul style="list-style-type: none"> • Participatory planning • Project identification and screening • Use of appropriate tools and formats for screening 	• <i>Regional experts</i>	1 week before the planning period

Types of trainings	Target groups	Training topics/ aspects of safeguard	Potential Trainers	Duration and Time of training
training, 15 participants	<ul style="list-style-type: none"> communities 	<ul style="list-style-type: none"> ESCMF, SA, ESSs and RPF implementation Implementation of mitigation measures Grievance redress mechanism EA concepts 		
Awareness creation training/ workshop 20 participants	<ul style="list-style-type: none"> PMU members Decision makers, 	<ul style="list-style-type: none"> ESSs, Environmental policies and guidelines ESCMF implementation and monitoring 	<ul style="list-style-type: none"> Consultants 	3 days before the planning period
Monitoring and evaluation training 50 participants	<ul style="list-style-type: none"> Technical Staff of MoA, PMU members <i>woreda</i> Steering Committee 	<ul style="list-style-type: none"> Monitoring and evaluation skills Monitoring and evaluation guidelines Participatory M &E 	<ul style="list-style-type: none"> M & E expert (consultant) 	Every year
Awareness creation training 20 participants	<ul style="list-style-type: none"> Local Community members 	<ul style="list-style-type: none"> Participatory planning, Environmental and social issues, and Monitoring of implementation 	<ul style="list-style-type: none"> <i>Woreda</i> experts 	3 days before the planning period
Monitoring visits and supervision follow up by ESCMF PMU, - office Steering Committee 10 participants	<ul style="list-style-type: none"> Federal steering committee, Federal technical committee, 	<ul style="list-style-type: none"> Backstopping support on various issues to regional and <i>woreda</i> level experts Field visits. 	-	At least twice in the project lifecycle

16. Budget Estimated for the implementation of ESCMF

(a) Budget Estimate for Capacity Building

PACT Program is planned to be completed in 7 years. The table below shows budget estimate for capacity building during the 7 years project life.

Table 16. 1 Budget Estimated for capacity building in US Dollars

No	List of activities	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
1	Awareness creation, launching workshop at federal, regional and woreda level							
1.1	Awareness raising, launching workshop and ToT at federal level	50,000						
1.2	Awareness raising and ToT/region	40,000						
1.3	Awareness raising at Woreda level/sub project	60,000						
	Subtotal	150,000						
2	Technical training workshop on the national and IFAD safeguard policies and guidelines							
2.1	Federal	50,000						
2.2	Regional	80,000						
2.3	Woreda	80,000						
	Subtotal	210,000						
3	Overall monitoring and supervision of the ESCMF implementation	40,000	40,000	40,000	40,000	40,000	40,000	40,000
4	Annual Review Workshops, and annual audit	50,000	50,000	50,000	50,000	50,000	50,000	50,000
5	Salary of social and environmental safeguard specialist	25,000	25,000	25,000	25,000	25,000	25,000	25,000

No	List of activities	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
7	Cost of Pre diem and transport during the field work for monitoring and supervision	25,000	25,000	25,000	25,000	25,000	25,000	25,000
8	Private consultancy fee	10,000	10,000	10,000	10,000	10,000	10,000	10,000
	Total	510,000	150,000	150,000	150,000	150,000	150,000	150,000

Budget estimate for Capacity Building is **1,410,000 USD**

(b) Budget estimate for the implementation of Mitigation measures

At this stage sites and scope of the sub projects are not yet precisely defined. The budget estimated indicated under table 7.1 to implement the proposed mitigation measures is therefore rough estimate subject to further refinement and adjustment during project implementation. Budget estimate for the implementation of the proposed mitigation measures as indicated in table 7.1 is estimated to be 44,900,000 Birr. Considering the current exchange rate of one USD is 52 Birr, budget required for the implementation of mitigation is **865,000 USD**.

(c) Budget estimate for the monitoring of the implementation mitigation measures

As indicated in Table 9.2 estimate budget for the implementation of social and environmental monitoring plan is estimated to be 24,050,000 Birr. Considering the current exchange rate of one USD is 52 Birr, budget required for the monitoring is **462,500 USD**.

Overall cost estimate for the implementation of ESCMF for the 7-year period = **2,737,500 USD**

Appendix

Annex 1: Environment and Social Screening following IFAD SECAP

ID	Thematic area/guiding questions	Yes/No	Comment
Category A – the following may have significant and often irreversible or not readily Remedied adverse environmental and/or social implications.			
Project location			
1	Would the project develop any wetlands?	No	
2	Would the project cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. conversion of more than 50 hectares of natural forest, loss of habitat, erosion/other form of land degradation, fragmentation and hydrological changes)?	No	The project will seek among others to promote sustainable land management to improve land productivity; conserve forest ecosystems; and provide climate finance even to off farm activities that are less dependent on natural resources.
3	Does the proposed project target area include ecologically sensitive areas, i.e. areas of global/national significance for biodiversity?	No	
4	Is the project location subjected to major destruction as a result of geophysical hazards (tsunamis, landslides, earthquakes, volcanic eruptions)?	No	
Natural resources			
5	Would the project lead to unsustainable natural resource management practices (fisheries, forestry, livestock) and/or result in exceeding carrying capacity. For example, is the development happening in areas where little up-to-date information exists on Sustainable yield/carrying capacity?	No	The project will focus on promoting sustainable land and natural resource management practices to build climate resilience. The project will also reduce overexploitation of natural resources through provision of clean energy.
6	Would the project develop large-scale aquaculture, or agriculture projects, or where their development involves significant alteration of ecologically sensitive areas?	No	
7	Would the project result in significant use of agrochemicals, which may lead to life-threatening illness and long-term public health and safety concerns?	No	
8	Does the project rely on water-based (groundwater and/or surface water) development where there is reason to	No	

	believe that significant depletion and/or reduced flow has occurred from the effects of climate change or from overutilization?		
9	Does the project pose a risk of introducing potentially invasive species or genetically modified organisms, which might alter genetic traits of indigenous species or have an adverse effect on local biodiversity?	No	The project will promote locally improved drought resistant varieties or breeds.
10	Does the project make use of wastewater (e.g. industrial, mining, sewage effluent)?	No	
Infrastructure development			
11	Does the project include the construction/ rehabilitation/upgrade of dam(s) and/or Reservoir meeting at least one of the following criteria? - more than 15-meter-high wall; - more than 500-meter-long crest; - more than 3 million m3 reservoir capacity; or - incoming flood of more than 2,000 m3/s	No	
12	Does the project involve large-scale irrigation schemes rehabilitation and/or development (more than 100 hectares per scheme)?	No	
13	Does the project include construction/ rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long, or any farmer with more than 10 per cent of his or her private land taken? Will the works entail temporary and/or Permanent resident workers?	No	
14	Does the project include drainage or correction of natural water bodies (e.g. river training)?	No	
15	Does the project involve significant extraction/diversion/containment of surface water, leaving the river flow below 20 per cent environmental flow plus downstream user Requirements?	No	
Social			

16	Would the project result in economic displacement or physical resettlement of more than 20 people, or impacting more than 10 percent of an individual household's assets?	No	The project activities will not require physical or economic displacement of communities.
17	Would the project result in conversion and/or loss of physical cultural resources?	No	
18	Would the project generate significant social adverse risk/impacts to local communities (including disadvantaged and vulnerable groups, indigenous people, persons vulnerable to GBV and sexual exploitation and abuse and people with disabilities) or other project-affected parties?	No	The project will promote gender equality and empowerment by targeting the vulnerable women and the youth. The interventions aim to increase food security and business opportunities leading to increased household income and social position.
Others			
19	Does the project include the manufacture and transportation of hazardous and toxic materials, which may affect the environment?	No	
20	Does the project include the construction of a large or medium-scale industrial plant?	No	The project will target small medium entrepreneurs with small-scale value addition facilitates.
21	Does the project include the development of large-scale production forestry?	No	The project will establish and conserve community forest ecosystems but will not promote forest harvest or production plants.
Rural finance			
22	Does the project support any of the above? (Question 1 to Question 21) through the provision of a line of credit to financial service providers?	No	
Category B – the following may have some adverse environmental and/or social implications which can be readily remedied.			
23	Does the project involve agricultural intensification and/or expansion of cropping area in non-sensitive areas that may have adverse impacts on habitats, ecosystems and/or livelihoods?	No	
Natural resource Management			
24	Do the project activities include rangeland and livestock development?	Yes	The project has component to support sustainable pasture management for livestock.
25	Does the project involve fisheries where there is information on stocks, fishing effort and sustainable yield? Is there any risk of overfishing, habitat damage	No	

	and knowledge of fishing zones and seasons?		
26	Would the project activities include aquaculture and /or agriculture in newly introduced or intensively practiced areas? Do project activities include conversion of wetlands and clearing of coastal vegetation, change in hydrology or introduction of exotic species?	No	
27	Do the project activities include natural resource-based value chain development?	Yes	The project will promote and commercialize crop and livestock value chains. Sustainable natural resources Management (soil and water and forests).
28	Do the project activities include watershed management or rehabilitation?	Yes	The project plans to conserve selected forests ecosystems and watersheds.
29	Does the project include large-scale soil and water conservation measures?	No	The project will support soil and water conservation on smallholder farmers' fields.
Infrastructure development			
30	Does the project include small-scale irrigation and drainage, and small and medium dam subprojects (capacity < 3 million m3)	Yes	The project will promote small-scale irrigation schemes to enable smallholder production but with dam capacity less than 3 million m3.
31	Does the project include small and microenterprise development subproject	Yes	The project focuses both on and off farm productivity and value chain commercialization and will invest in viable microenterprises.
32	Does the project include the development of agro-processing facilities?	Yes	The project will include development of small agro-processing facilities. Project will ensure environmental sustainability by abiding to the existing country laws.
33	Would the construction or operation of the project cause an increase in traffic on rural roads?	No	
Social development			
34	Would any of the project activities have minor adverse impacts on physical cultural resources?		The project through prior and continued consultations will ensure that social cultural resources are protected and respected.
35	Would the project result in physical resettlement of 20 people or less, or impacting less than 10 per cent of an individual household's assets?	No	The project activities do not require people resettlement.
36	Would the project result in short-term public health and safety concerns?	No	

37	Would the project require a migrant workforce or seasonal workers (for construction, planting and/or harvesting)?	No	
Rural finance			
38	Does the project support any of the above (Question 23 to Question 37) through the provision of a line of credit to financial service providers?	Yes	The project through matching grants will support private small-scale entrepreneurs in value addition but access to inputs for small-scale farmers.
Guidance on Environmental and Social Screening category			
Category A: A “Yes”, response to any questions 1 to 22. In accordance with SECAP, category A requires an Environmental and Social Impact Assessment or an Environmental and Social Management Framework. In addition, and depending on available information, category is A will require: <ul style="list-style-type: none"> - A “Yes”, to question 16: Require a Resettlement Action Plan - A “Yes”, to question 17: Require a Physical Cultural Resources Management Plan - A “Yes” to question 18: Require a Free, Prior and Informed Consent and Informed Consent Implementation Plan if the affected communities are identifiable and an Indigenous Peoples Plan if indigenous communities are affected. - A “Yes”, to question 8 and/or question 15: Require a Water Resources Management Plan, and - A “Yes”, to question 7 and/or question 19: Require a Pest Management Plan. 			
Category B: A “No” response to questions between 1 and 22, and “yes” response any question between 23 and 38. In accordance with SECAP, category B requires an Environmental and Social Analysis Study to develop an Environmental and Social Management Plan (ESCMP).			
Category C: A “No” response to all questions. No further analysis nor mitigating measures are required for the Project.			

Climate Risk Screening

Detailed Climate Risk Screening following IFAD SECAP guidelines is presented in Table 2. A “yes” response to any of questions 1 to 7 results into the project being categorized as high climate risk, which requires an in-depth climate risk analysis. A “yes” response to questions 8 and 9 results into the project being categorized as having a moderate climate risk, which require a basic analysis to identify and incorporate necessary mitigation measures. A “no” response to all the questions, results in the project being categorized as having a low climate risk, where no further analysis is done but voluntary mitigation options are encouraged.

Annex 2: Climate Risk Screening following IFAD SECAP

ID	Guiding questions	Yes/No	Comment
1	Is the project area subject to extreme climatic events, such as flooding, drought, tropical storms or heat waves?	No	Ethiopia has faced and continue to face climate impacts from droughts, floods and rainfall variability leading to reduced agricultural productivity. However, some of the project components or investments such as climate information services, promotion of off farm business activities and management of forests ecosystems are not expected to be extremely impacted by climate change.
2	Do climate scenarios for the project area foresee changes in temperature, rainfall or extreme weather that will adversely affect the project impact, sustainability or cost over its lifetime?	No	Temperatures in Ethiopia are estimated to have increased by 3.0 degree since 1960s and will increase further by between 1.5 to 2.5 degrees by 2065. This would result into reduced yield of staple food crop (maize) by up to 5.74% by 2050.
3	Would the project make investments in low- lying coastal areas/zones exposed to tropical storms?	No	
4	Would the project make investments in glacial areas and mountains zones?	No	
5	Would the project promote agricultural activity in marginal and/or highly degraded areas that have increased sensitivity to climatic events (such as on hillsides, deforested slopes or floodplains)?	No	
6	Is the project located in areas where rural development projects have experienced significant weather-related losses and damages in the past?	Yes	In 2015, precipitation decreased on average by nearly 50% leading to water crisis in Mbabane. In 2016, drought lead to 64% decrease in agricultural production and 7.3% cattle loss. The project aims to increase resilience of such communities.
7	Would the project develop/install infrastructure in areas with a record of accomplishment of extreme weather events?	No	
8	Is the project target group entirely dependent on natural resources (such as seasonal crops, rainfed agricultural plots, migratory fish stocks) that have been affected by in the last decade by climate trends or specific climatic Events?	No	However, the communities are mostly dependent on seasonal crop production, which is mostly or entirely dependent on rainfed.
9	Would climate variability likely affect agricultural productivity (crops/livestock/fisheries), access to markets and/or the associated incidence of pests and diseases for the project target groups?	Yes	Climate variability will affect future production of maize (staple food), which is estimated to decrease by 5.74% by 2050. The incidences of pest and diseases in crop and livestock are likely to increase as a result of climate variability.

10	Would weather-related risks or climatic extremes likely adversely affect upon key stages of identified value chains in the project (from production to markets)?	Yes	The project will promote small-scale irrigation schemes and climate smart technologies to sustain production. The project will further promote viable off farm enterprises to reduce household and communities' vulnerabilities to climate change.
11	Is the project investing in climate-sensitive livelihoods that are diversified?	Yes	The project will invest in crop, livestock, off farm business opportunities, forests ecosystems thereby promoting household income diversification, which are currently mostly based on crop and forest ecosystems production.
12	Is the project investing in infrastructure that is exposed to infrequent extreme weather events?	No	
13	Is the project investing in institutional development and capacity-building for rural institutions (such as farmer groups, cooperatives) in climatically heterogeneous areas?	Yes	The project will strengthen the capacity of producer groups and small scale entrepreneurs in selected value chains and marketing. The project will further promote long term climate finance and climate risk management skills.
14	Does the project have the potential to become more resilient through the adoption of green technologies at a reasonable cost?	Yes	The project will promote several green interventions such as clean energy supply technologies, forestry ecosystems and decision making following climate information
15	Does the project intervention have opportunities to strengthen indigenous climate risk management capabilities?	Yes	The project will work with local and indigenous knowledge systems to strengthen climate resilience e.g. participatory early warning systems
16	Does the project have opportunities to integrate climate resilience aspects through policy dialogue to improve agricultural sector strategies and policies?	Yes	Evidence generated during project implementation will be used to continuously inform policy dialogues and engagement. This will specially apply to determining most viable future investments and design of climate risk insurance schemes and products.
17	Does the project have potential to integrate climate resilience measures without extensive additional costs (e.g. improved building codes, capacity-building or including climate risk issues in policy processes)?	Yes	Project will promote climate resilience activities such as reforestation and agro forestry, sustainable land and water management practices and solar energy application among others
18	Based on the information available would the project benefit from a more thorough accounting of GHG emission?	Yes	Investing in sustainable NRM practices, forest ecosystems and other measures to increase small-scale productivity with mitigation co-benefits are expected reduce GHG emissions.
Guidance on Climate Risk category			
High Risk: A "Yes" response to any of the questions 1 to 7, where a detailed or in-depth climate risk analysis study is required.			
Moderate Risk: A "Yes" response to any of the questions 8 to 17, where a basic analysis is required on how to incorporate mitigation actions.			
Low Risk: A "No" response to almost all questions. No further analysis is required, but voluntary mitigative measures can be incorporated.			

Annex 3: List of Proposed project activities that are not eligible for Funding

Proposed project activities that are not eligible for funding
Project activities that will block the access to water points etc. used by others
Project activities that will cause encroachment to, and adversely affect, important natural habitats (e.g., wildlife reserves; parks or sanctuaries; protected areas; natural habitat areas, forests and forest reserves, wetlands, national parks or game reserve; any other ecologically/environmentally sensitive areas)
Project activities that will impact on physical cultural resources (archaeological sites; religious monuments or structures; natural sites with cultural values; cemeteries; graveyards; graves; and other sites of significance)
Project activities that will be located in protected areas and ecologically sensitive sites
Project activities that would not disadvantage or give advantage to community members.
Project activities that will contravene international and regional conventions on environmental and social issues
Project activities that cause large-scale physical disturbance of the site or the surroundings

Annex 4: Environmental and Social Screening Checklist

This section outlines the selection criteria and associated Environmental and Social Assessment procedures to be applied when screening Project activities under FICNUDE+.

Annex 4.1: Information for screening potential safeguards impacts

I. Basic Data:

Name of the Program:

Name of the proposed project activity:

Name of the Beneficiary:

Address:

Civil Works to be constructed:

Proposed Date for Commencement of Work:

DBE/MFI Team Representative and Address:

Site Selection:

II. Site Description

Site Features	Description
Physical description of the site	
Proximity to existing water points, wells and other water resources	
Presence and type of vegetation	

What is the current land use?	
Who identified the site?	
Who is the owner or user of the land?	
Who occupies the land?	

Completeness of the Application:

Does the application document contain, as appropriate, the following information?

Issues to be considered	Yes	No	N/A
Description of the proposed project activity and where it is located			
Reasons for proposing the project activity			
The estimated cost of implementation			
Information about how the site was chosen, and what alternatives were considered			
A map or drawing showing the location and boundary of the Proposed project activity including any land required temporarily during construction			
The plan for any physical works (e.g. layout, buildings, other structures, construction materials)			
Any new access arrangements or changes to existing road layouts			
Any land that needs to be acquired, as well as who owns it, lives on it or has rights to use it			
A work program for construction, operation and decommissioning the physical works, as well as any site restoration needed afterwards			
Construction methods			
Resources to be used in construction and operation (e.g. materials, water, energy)			

Issues to be considered	Yes	No	N/A
Information about measures included in the Proposed project activity plan to avoid or minimize adverse environmental and social impacts			
Details of any permits required for the proposed project activity			

Annex 4.2: Eligibility checklist

Name of the Program:

Name of the Project activity:

Location of the subproject: Region: _____

Person(s) who did the eligibility checklist

Name	Organization	Signature	Date
1.			
2.			

Answer the following questions to determine whether the Proposed project activity is eligible or not*		
Will the subproject	Yes	No
cause large-scale physical disturbance of the site or the surroundings		
block the access to or use of water points etc. used by others		
located in protected areas and other ecologically sensitive ecosystems		
create encroachment and/or cause significant adverse impacts to critical natural habitats (e.g., wildlife reserves; parks or sanctuaries; protected areas; forests and forest reserves, wetlands, national parks or game reserve; any other ecologically/environmentally sensitive areas)		
significant impact on physical cultural resources (archaeological sites; religious monuments or structures; natural sites with cultural values; cemeteries; graveyards; graves; and other sites of significance)		
Have risk on and/or exclude some members of a community, including vulnerable and minority groups		

Contravene international and regional conventions on environmental and social issues		
--	--	--

** This simple checklist can be used as a format for fast track eligibility checking of identified program activities*

Eligibility Recommendations:

It should be noted that if your answer is “YES” to any of the questions above, your Proposed project activity is not eligible and has to be rejected unless the features can be avoided by change of design and/or other appropriate mitigation measures.

Proposed project activity is eligible and approved:

☐

Proposed project activity is not eligible and rejected, and requires further action:

☐

Screening supervised and approved by:

Name

Position

Signature

Date:

1. _____

Annex 4.3. Screening checklist for environmental and social concerns needing special attention

Name of the Program:

Name of the subproject:

Person(s) who did the eligibility checklist

Name

Organization

Signature

Date

1.

2.

A. Environmental and social concern of the proposed project activity

Feature of environmental and social concern: Will the subproject	Yes	No	Comments
Involves land acquisition, or loss of assets, or access to assets on the land			
Have chemical wastes, disposal and pollution issues			

Displace individuals, families or businesses			
Encroach any sensitive area, like wetlands, national parks			
Located in or near an area where there is an important historical, archaeological or cultural heritage site			
Have risk of causing the contamination of drinking water			

If the Proposed project activity have any of the above features ('Yes' answers), the concerned focal person/expert, within the DBE/MFIs in collaboration with those concerned notifies the Regional and Woreda Environmental offices to make sure that the necessary procedures and guidelines are followed. In addition, the proposed project activities have to be screened for any potential environmental and social concern as per the checklist given below

Recommendations

Proposed project activity needs special attention: ☐

Proposed project activity does not need special attention ☐

Additional comments

Screening supervised and approved by:

Name Position Signature Date:

1 _____

B. Checklist for environmental and social impact rating for Proposed project activities of environmental and social concerns.

Impact rating will be considered both in terms of consequence of impacts and probability of impacts so as to avoid subjective impact analysis.

No.	Type of activity – Will the proposed project activity :	If Yes, Rate of Impacts				
		None	Low	Medium	High	Unknown
1	Build or rehabilitate any rural roads?					
2	Build or rehabilitate any electric energy system?					
3	Build or rehabilitate any structures or buildings?					
4	Support agricultural activities?					
5	Be located in or near an area where there is an important historical, archaeological or cultural heritage site?					
6	Be located within or adjacent to any areas that are or may be protected by government (e.g. national park, national reserve, world heritage site) or local tradition, or that might be a natural habitat?					
7	Depend on water supply from existing reservoirs, weir, or other water diversion structure?					
B	Environment – Will the Proposed project activity:	If Yes, Rate of Impacts				
		None	Low	Medium	High	Unknown
8	Have risk of causing the contamination of drinking water?					
9	Cause poor water drainage and increase the risk of water-related diseases such as malaria or bilharzias?					

10	Be located within or nearby environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?					
11	Create a risk of increased soil degradation or erosion?					
12	Produce, or increase the production of, solid or liquid wastes (e.g. water, medical, and domestic or construction wastes)?					
13	Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)?					
14	Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?					
C	Environment – Will the proposed project activity :	If Yes, Rate of Impacts				
		None	Low	Medium	High	Unknown
15	Require that land (public or private) be acquired (temporarily or permanently) for its development?					
16	Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests)					
17	Displace individuals, families or businesses?					
18	Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as granaries, outside toilets and kitchens?					

19	Result in the involuntary restriction of access by people to legally designated parks and protected areas?					
----	--	--	--	--	--	--

When considering the location of a proposed project activity, rate the sensitivity of the proposed site is as shown in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects. The following table should be used as a reference.

Summary of site sensitivity

Issues	Site Sensitivity		
	Low	Medium	High
Sensitive Natural habitats (Wetland, national parks)	No natural habitats present of any kind, No critical hot spot biodiversity area, fragile ecosystem	No critical natural habitats; other natural habitats occur	Presence of critical natural habitats present. hot spot biodiversity area, fragile ecosystem with in declared protected area
Water quality and water resource availability and use	Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues	Medium intensity of water use; multiple water users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important
Natural hazards vulnerability, floods, soil stability/ erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic/ flood/ hurricanes	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks

Issues	Site Sensitivity		
	Low	Medium	High
Cultural property Physical cultural resources	No known or suspected cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in project area
Involuntary resettlement	No economic or physical displacement	If it displaces less than 200 people	If it displaces greater than 200 people
Land acquisition	No land acquisition	If the activity takes less than 20% of households land	If the activity takes more than 20% of households land

Summary of assessment (based on field visit):

Environmental Category (B or C) of the Proposed project activities(with justification):

Recommendation

☐ The Proposed project activity can be considered for approval. The application is complete, all significant environmental and social issues are resolved, and no further planning of proposed project activity is required: Approved without condition (*Project activity is not of environmental and social concern and is ready for approval*)

☐ Safeguards instrument(s) required: Partial ESIA, ESCMP or others (please specify)



Participatory Agriculture and Climate Transformation (PACT)
Project

ESCMP required:

- ☐ Rejected; reasons for rejection:
- ☐ Others (specify):
- ☐ A field appraisal is required.

CERTIFICATION

I/We certify that I/we have thoroughly examined all the potential adverse effects of these project activities. To the best of our knowledge, the proposed project activity as described in the application and associated planning reports (e.g. ESCMP, RAP/ARAP,), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

A Field Appraisal report will be completed and added to the file.

Name of desk appraisal officer (print):

Signature:**Date:**

Date:

Desk Appraisal by Review Authority:

Note: A field appraisal must be carried out if the Proposed project activities:

- Needs to acquire land, or an individual or community's access to land or available resources is restricted or lost, or any individual or family is displaced;
- May restrict the use of resources in a park or protected area by people living inside or outside of it;
- May affect a protected area or a critical natural habitat;
- May encroach onto an important natural habitat, or have an impact on ecologically sensitive ecosystems (e.g. rivers, streams, wetlands);
- May adversely affect or benefit an underserved and vulnerable people;
- Involves or introduces the use of pesticides;

- *Involves, or results in: a) diversion or use of surface waters; b) construction or rehabilitation of latrines, septic or sewage systems; c) production of waste (e.g. slaughterhouse waste, medical waste); d) new or rebuilt irrigation or drainage systems; or e) weirs, reservoirs or water points; and,*
- *Any others to be clarified/checked at the Proposed site (please mention them).*

.....

.....

Annex 5: Suggested Environmental and Social Field Appraisal Form

Name of the Program:

Name of the proposed Project Activity:

Application Number:

Part 1: Identification

1. Name: (.....)
2. Location: (.....)
3. Reason for Field Appraisal:
4. Date(s) of Field Appraisal:
5. Field Appraisal Officer and Address:
6. Extension Team Representative and Address:
7. Community Representative and Address:

Part 2: Description of the Proposed Project Activity

8. Details:
-

Part 3: Environmental and Social issues

9. Will the Proposed project activity:
- | | Yes | No |
|--|--------------------------|--------------------------|
| • Need to acquire land? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Affect an individual or the community's access to land or available resources? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Displace or result in the involuntary resettlement of an individual or family? | <input type="checkbox"/> | <input type="checkbox"/> |

If "Yes", tick one of the following boxes:

- The Resettlement Action Plan (RAP/ARAP) included in the allocation is adequate. No further action required.
 - The RAP/ARAP included in the application must be improved before the application can be considered further.
-

- An RAP/ARAP must be prepared and approved before the application can be considered further.

10. Will the subproject:

Yes

No

* Encroach onto an important natural habitat?

☐
☐

* Negatively affect ecologically sensitive ecosystems?

☐
☐

If "Yes", tick one of the following boxes:

- The Environmental and Social Management Plan (ESCMP) included in the application is adequate. No further action required.
- The ESCMP included in the application must be improved before the application can be considered further.
- An ESCMP must be prepared and approved before the application can be considered further.

11. Will this proposed project activity involve or result in:

Yes

No

- Diversion or use of surface waters?

☐
☐

- Production of waste?

☐
☐

- New or rebuilt irrigation or drainage systems?

☐
☐

If "Yes", tick one of the following boxes:

- The application describes suitable measures for managing the potential adverse environmental effects of these activities. No further action required.
- The application does not describe suitable measures for managing the potential adverse environmental effects of these activities. An ESCMP must be prepared and approved before the application is considered further.

12. Will this Proposed project activity impact on water supplied from an existing reservoirs or weir?

Yes

☐

No

☐

If "Yes", tick one of the following boxes:

- The application demonstrates that a dam safety report has been prepared, the dam is safe, and no remedial work is required. No further action is required.
- The application does not demonstrate that a dam safety report has been prepared, the dam is safe, and no remedial work is required. A dam safety report must be prepared and approved before the application is considered further.

15. Are there any other environmental or social issues that have not been adequately addressed?

Yes

☐

No

☐

If "Yes", summarize them:

.....

And tick one of the following boxes:

- Before it is considered further, the application needs to be amended to include suitable measures for addressing these environmental or social issues.
- An ESCMP needs to be prepared and approved before the application is considered further.

Part 4: Field Appraisal Decision

- The Proposed project activity can be considered for approval. Based on a site visit and consultations with both interested and affected parties, the field appraisal determined that the community and its proposed project adequately address environmental and/or social issues as required by the ESCMF.
- If the field appraisal identify environmental and/or social issues have not been adequately addressed, then recommendation will be made to amend the application.
- All required documentation such as an amended application, ESCMP, RAP/ARAP, will be added to the proposed project activity file for further consideration.

Name of field appraisal officer (print):

Signature:**Date:**

Annex 6: Guideline for the preparation of site specific ESCMP

ESCMPs should demonstrate that proposed environmental and social management and monitoring activities will encompass all major impacts and how they will be integrated into supervision. The ESCMP should also describe proposed measures, methods, and actions to facilitate public consultation. It is important that the ESCMP identify linkages to other social and environmental safeguards plans relating to the proposed project activities such as plans dealing with resettlement issues. ESCMPs should be finalized and approved after taking into account comments from Woreda Environmental offices. The IFAD safeguards team will review and provide comments on draft site-specific instruments (if required) and monitor the safeguards compliance. Given below are the important elements that constitute an ESCMP:

- i) **Description of the subproject:** Scale nature and type of proposed project activity implemented under the proposed programs are summarized.
- ii) **Description of Proposed project area:** The Biophysical and social environmental setting of the specific Proposed project activity are summarized
- iii) **Impacts:** Predicted adverse environmental and social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized.
- iv) **Description of Mitigation Measures:** Each measure should be briefly described in relation to the impact(s) and conditions under which it is required. These should be accompanied by and/or referenced to designs, development activities, operating procedures, and implementation responsibilities. Proposed measures and actions to facilitate public consultations should be clearly described and justified. Feasible and cost-effective measures to minimize adverse impacts to acceptable levels should be specified with reference to each impact identified. Further, the ESCMP should provide details on the conditions under which the mitigation measure should be implemented. The ESCMP should also indicate the various practicable measures applicable to the proposed project activity at each project phases (design, construction and/or operation). Efforts should also be made to mainstream environmental aspects wherever possible.
- v) **Description of monitoring program:** The ESCMP identifies monitoring objectives and specifies the type of monitoring required; it also describes performance indicators which provide linkages between impacts and mitigation measures identified in the ESA report, parameters to be measured (for example: national standards, extent of impacted area to be considered, etc.), methods to be used, sampling location and frequency of measurements, and definition of thresholds to signal the need for corrective actions. Monitoring and supervision arrangements should be agreed by IFAD and the client to ensure timely detection of conditions requiring remedial measures in keeping with best practice; provide information and the progress and results of mitigation and institutional strengthening measures; and, assess compliance with National and IFAD environmental safeguard policies
- vi) **Institutional arrangements:** Institutions responsible for implementing mitigation measures and for monitoring their performance should be clearly identified. Where necessary, mechanisms for institutional coordination should be identified, as often, monitoring tends to involve more than one institution. This is especially important for requiring cross-sectoral integration. In particular, the ESCMP specifies who is responsible for undertaking the mitigation and monitoring measures, e.g., for enforcement of remedial actions, monitoring of implementation, training, financing, and reporting. Institutional arrangements should also be crafted to maintain support for agreed enforcement measures for environmental protection. Where necessary, the ESCMP should propose strengthening the relevant agencies through such actions as establishment of appropriate organizational arrangements; appointment of key staff and consultants.
- vii) **Implementing schedules:** The timing, frequency and duration of mitigation measures and monitoring should be included in an implementation schedule, showing phasing and coordination with procedures in the overall implementation/operations manual. Linkages should be specified where implementation of mitigation measures is tied to institutional strengthening and to the legal agreements.

- viii) **Reporting procedures:** Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigation measures and monitoring itself should be specified. Guidelines on the type of information required and the presentation of feedback information should also be highlighted.
- ix) **Cost estimates and sources of funds:** Implementation of mitigation measures mentioned in the ESCMP will involve an initial investment cost as well as recurrent costs. The ESCMP should include cost estimates into the design, bidding and contract documents to ensure that the contractors will comply with the mitigation measures. The costs for implementing the ESCMP will be included in the design, as well as in the bidding and contract documents. It is important to capture all costs – including administrative, design and consultancy, and operational and maintenance costs – resulting from meeting required standards or modifying design.

For each potential impacts of the proposed project activity, corresponding mitigation measures, and who is responsible for implementation is indicated. For each potential environmental and social impact, there can be more than one mitigation measure. Responsibility for implementation of mitigation measures will typically rest with the contractor or beneficiary during construction and operation of the proposed activities.

The monitoring section of the ESCMP prescribes indicators for monitoring the environmental and social impact and the effects of mitigation measures. The responsibility for this will typically rest with the DBE in collaboration with the respective pertinent institutions. A template for ESCMP is depicted in annex 5.

Annex 7: Suggested Environmental and Social Management Plan (ESCMP) Template for the proposed project activities

<i>identification</i>					
<i>Name</i>					
<i>Region</i>		<i>Zone</i>		<i>Wereda</i>	
<i>Kebele/community</i>		<i>Location GPS coordinates</i>			

<i>Description of the Proposed project activity</i>
<i>Description of potential environmental and social impacts;</i>
<i>Description of planned mitigation measures and monitoring along with institutional responsibilities and capacity/training requirements</i>

Environmental and Social Management Plan-Mitigation					
Project Phase	Project activity	Environmental Impacts	Mitigation/ enhancement measures	Institutional responsibilitie s	Cost
Pre-construction					
Construction					

Operation and maintenance					
Total mitigation costs					

Environmental and Social Management Plan-Monitoring							
Project Phase	Mitigation measures	Parameters to be monitored	location	measurements	frequency	Institutional responsibilities	Cost
Pre-construction/activities							
Construction/activities							
Operation and maintenance/activities							
Total monitoring costs							

Annex 8: Procedures for Chance Find of Physical Cultural Resources

Any Proposed project activities within the scope of the proposed Program, that will impact the cultural resources are not eligible for funding (Refer to Annex 1). In case of any possibility of chance find of physical cultural resources, most notably during excavation as part of construction activity the contractor should report to the responsible institutions for further guidance.

Such physical cultural resources may take the form of work of art, building structures, graves or other sites of importance, including sites of archaeological, historical or religious significance.

All chance finds of such physical cultural resources will lead to temporary suspension of all activity that will adversely impact the cultural resource. Contracts/Masons will include detailed procedures for ensuring the protection of the cultural resources, including cessation of activities until the significance of the find has been determined and until appropriate mitigating measures has been implemented. This Annex contains standard provisions to be included in the contract that potentially will lead to chance finds of physical cultural resources, as required in the contract document

The attachments outlined below will be annexed to the contract in case there is the possibility of chance find of physical cultural resources.

Attachment to contracts in case of potential chance find of physical cultural resources

If the Contractor discovers archaeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor/Masons shall:

- 1: Excavation in sites of known archaeological interest should be avoided as stated in annex 1 since; such project activities are not eligible for funding. Where historical remains, antiquity or any other object of cultural, historical or archaeological importance (including graveyards) are unexpectedly discovered during construction in an area not previously known for its archaeological interest, the following procedures should be applied:
 - a) Stop the construction activities in the area of the chance find.
 - b) Delineate the discovered area.
 - c) Secure the area to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible Regional authorities and the Ministry of Culture and Tourism take over.
 - d) Notify to DBE and the respective relevant institutions to contact the responsible local authorities and the Ministry of Culture and Tourism immediately (less than 24 hours).
 - e) The Ministry of Culture and Tourism will be in charge of protecting and preserving the area until deciding on the proper procedures to be carried out. This might require an evaluation of the findings to be performed by the archaeologists of the relevant Ministry Culture, and Tourism (within 1 week). The evaluation of the findings will take in consideration various criteria relevant to cultural heritage, including the aesthetic, historic, scientific or research, social and economic values as decided by the Ministry of Culture and Tourism.
 - f) Decisions on how to handle the finding are taken by the responsible authorities and the Ministry of Culture and Tourism (within 2 weeks). This could include changes in the location of the Proposed project activity layout (such as when the finding is irremovable remains of cultural or archaeological importance), conservation, preservation, restoration and salvage.
 - g) Construction or rehabilitation work will resume only after authorization is provided by the responsible local authorities and the Ministry of Culture and Tourism concerning the safeguard of the heritage.
 - h) Authorization to resume work shall be communicated to the contractor in writing by the Ministry of Culture and Tourism.

- 2: In case of delays incurred indirect relation to any physical cultural resources findings not stipulated in the contract (and affecting the overall schedule of works), the contractor/masons may apply for an extension of time. However, the contractor/masons will not be entitled to any kind of compensation or claim other than what is directly related to the execution of the physical cultural resources findings works and protections.

Annex 9: Guidelines for Annual Reviews

Objectives:

The objectives of annual reviews of ESCMF implementation are two-fold:

- a) To assess the program performance in complying with ESCMF procedures, learn lessons, and improve future performance; and,
- b) To assess the occurrence of, and potential for, cumulative impacts of the proposed project activities

The program management is expected to use the annual reviews to improve on procedures and capacity for integrating natural resources and environmental/social management into proposed program operations.

Scope of Work:

ESCMF Performance Assessment

The overall scope of the performance assessment work is to:

- a) Assess the adequacy of the process and procedures based on interviews with Project participants, Project records, and the environmental and social performance of a sample of approved project activities;
- b) Assess the adequacy of ESCMF roles and responsibilities, procedures, forms, information resource materials, etc.;
- c) Assess the needs for further training and capacity building;
- d) Identify key risks to the environmental and social sustainability of the proposed project activities; and,
- e) Recommend appropriate measures for improving ESCMF performance.

The following tasks will be typical:

- a) Review national, regional and Woreda records of proposed project preparation and approval (e.g. applications; management in the region and Woreda; screening checklists; EMPs, appraisal forms; approval documents), as well as related studies or reports on wider issues of natural resources and environmental management in the country;
- b) On the basis of this review, conduct field visits to assess the completeness of planning and implementation work, the adequacy of environmental/social design, and compliance with proposed mitigation measures. The sample should be large enough to be representative and include a substantial proportion that had (or should have had) a field appraisal according to established ESCMF criteria. Proposed project activities in sensitive natural or social environments should especially be included;
- c) Interview national, regional and Woreda officials responsible for appraisal and approval to determine their experience with ESCMF implementation, their views on the strengths and weaknesses of the ESCMF process, and what should be done to improve performance. Improvements may concern, for example,

the process itself, the available tools (e.g. guidelines, forms, information sheets), the extent and kind of training available, and the amount of financial resources available; and,

- d) Develop recommendations for improving ESCMF performance.

Cumulative Impacts Assessment

This part of the annual review assesses the actual or potential cumulative impacts of proposed project activity with other development initiatives on the environment, natural resources and community groups, if applicable. Cumulative impacts result from a number of individual small-scale activities that, on their own, have minimal impacts, but over time and in combination generate a significant impact. For example:

- a) Decline in groundwater levels or quality due to the abstraction of waters from limited natural water sources or wells and the introduction of numerous other small scale project activities affecting the available water potential in the area;
- b) Overwhelmed or illegal waste and dumping sites due to the inappropriate disposal of increasing amounts of waste materials; and,
- c) Attraction of migrant populations to communities that have successfully introduced improved social infrastructure (such as schools, health facilities or water sources) resulting in depletion of resources (e.g., supplies, water), etc.

The function of this assessment is primarily as an "early warning" system for potential cumulative impacts that might otherwise go undetected and unattended to. It will be largely based on the observations of people interviewed during the fieldwork, and trends that may be noticed by regional or Woreda officials. Where cumulative impacts are detected or suspected, recommendations will be made to address the issue, perhaps through more detailed study to clarify matters and what should or can be done about them.

Qualifications for Undertaking Annual Reviews:

The annual reviews shall be undertaken by an individual or small team, with experience relevant to the likely issues to be encountered (e.g. environmental and natural resources management, land acquisition and resettlement, livelihood restoration). They should also be familiar with the methods and practices of effective community consultation, and with typical methods and processes for preparing, appraising, approving and implementing small-scale community development projects.

Timing:

Annual reviews should be undertaken after the annual ESCMF report has been prepared and before IFAD supervision of the Project, at the closing of each year of the programs. It is expected that each review would require 3 to 4 weeks of work and that the review report would be completed within 2 weeks of completing the fieldwork.

Outputs:

The principal output is an annual review report that documents the review methodology, summarizes the results, and provides practical recommendations. Distinct sections should address;

- a) ESCMF performance;

b) Cumulative impacts; and,

C) Measures to be taken.

Annexes should provide the detailed results of the fieldwork, and summarize the number of approved proposed project activities and their characteristics according to the annual report format.

Copies of the annual review report should be delivered to the Programs management, to each national and regional office responsible for appraisal, approval and implementation of the proposed project activities, and to the IFAD. The project management (national or regional) may also want to host national or regional workshops to review and discuss the review findings and recommendations.

Annex 10: Suggested Forms for ESCMF Reporting, Training and Follow-up

This annex contains three templates to be used in conjunction with monitoring and reporting and follow for ESCMF implementation.

ESCMF reporting form

Title of the Proposed project activity	Application received (date)	Field appraisal undertaken (date if undertaken)	Application approved (date approved) if	ESCMP developed (yes or no)	Written warnings of violation of ESCMP issued (yes/no)	Chance find of procedures invoked (yes or no)

ESCMF training form

Personnel	No. of people trained	Training received
Safeguard specialist/officer		
Zonal focal points		
Woreda staff		
Community members etc.		

Follow up on previous recommendations

Recommendation	Date of recommendation	Action taken	Recommendation implemented (yes/no)

Annex 11: Sample Terms of Reference (ToR) for ESIA Preparation

Based on the screening and scoping results, ESIA terms of reference will be prepared. The terms of reference will have the following contents. *Please refer to the Guideline Series Documents for Reviewing Environmental Impacts Study Reports (EPA, 2003) for detail information on contents and descriptions of ESIA report (EPA, 2003).*

- I. Objective of the TOR:** This section should state the scope of the ESIA in relation to the screening category and the proposed program activities. It needs to stipulate the process and the timing of the ESIA preparation and implementation stages in order to adequately address the safeguards requirements of the GoE and the IFAD.
- II. Introduction and Context:** The ToR needs to provide information on program activity objective, the name of the program activity proponent, the rationale for conducting the ESIA, specific components of the program activity, program activity area with location map, short briefing of social and environment of settings and applicable national and international safeguard policies.
- III. Location of the study area and likely major impacts:** State the area involved and the boundaries of the study area for the assessment. Identify adjacent or remote areas which should be considered with respect to impacts of particular aspects of the program activity.
- IV. Mission/Tasks:** The ESIA study team/consultant should clearly execute the following tasks.
 - Task A: Description of the proposed program activity:** Describe the location, size and nature of the program activity, environmental assessment category, brief description of program activity alternatives, time schedule for phasing of development (i.e. preconstruction, construction, operation/maintenance, decommissioning), and resources (finance, human, material and technology) required for the program activity, among others.
 - Task B: Baseline information/Biophysical and social-economic description:** Describe the baseline/biophysical and socio-economic characteristics of the environment where the program activity will be implemented; and area of influence. Include information on any changes anticipated before the program activity commences.
 - Task C: Administrative and legal Policy framework:** In addition to the required administrative and institutional setup for the implementation of the program activity, this part needs to identify pertinent policies, regulations and guidelines pertinent to the study that include:

- ✓ National laws and/or regulations on environmental and social assessments;
- ✓ Regional environmental and social assessment regulations;
- ✓ Environmental and social assessment regulations of any other financing organizations involved in the program activity;
- ✓ Relevant international environmental and social agreements/conventions to which
- ✓ Ethiopia is a party; and,
- ✓ IFAD safeguards policies.

Task D: Identification of potential impacts of the program activity: Identify all potential significant impacts that the program activity is likely to generate. Assess the impacts from changes brought about by the program activity on baseline environmental conditions as described under Task B. The analysis should address both the positive and negative impacts of the program activity. Wherever possible, describe impacts quantitatively, in terms of environmental and social costs and benefits.

Task E: Propose Program activity alternatives: Alternatives extend to site, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental and social impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements.

Task F: Preparation of an Environmental and Social Management Plan (ESCMP): Describe the mitigation measures for adverse environmental and social impacts, staffing/institutional and training requirements, schedules, and other necessary support services to implement the mitigating measures. Provide environmental and social protection clauses for application by contractors and consultants, if any. The ToR should state that the concerned and affected parties should agree on the proposed mitigating measures before they are included in the ESCMP.

Task G: Monitoring Plan: This organizes a comprehensive plan to monitor the implementation of mitigating measures and the impacts of the program activities. It should also address an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to implement the plan.

V. Qualification of the ESIA study team/Consultant: The ToR should provide clear guidance on the qualification of the ESIA study team.

VI. Duration of the ESIA Study: This should be determined according to the type of the program activity.

VII. Preparation of the final Report: The ESIA study team/consultant will produce the final report one week after receiving comments from program activity proponent and concerned stakeholders. The final report will include comments from these institutions.

VIII. Suggested Contents of the ESIA Report: Please refer to the “Guideline Series Documents for Reviewing Environmental Impacts Study Reports” (EPA, 2003) to get detail information on the contents of ESIA report (EPA, 2003). The contents of the ESIA report should contain the following elements.

- Executive Summary;
- Introduction;
- Methodology;
- Administrative, legal and policy requirements;
- Description of program activity (need, objectives, technical details, size, location input and other relevant requirements);
- An outline of the main development alternatives;
- Description of baseline information/environmental and socio-economic conditions;
- An account of the prediction and assessment of each impact at all stages of the program activity cycle for each alternative;
- Description of the methodology and techniques used in assessment and analysis of the program activity impacts;
- Description of environmental and social impacts for program activity;
- Environmental and Social Management Plan (ESCMP) for the project including the proposed mitigation measures;
- Institutional responsibilities for monitoring and implementation; Summarized table for ESCMP;
- Conclusions and recommendations;
- References; and,
- Annexes:
 - ✓ List of Persons/Institutions met;
 - ✓ List of the ESIA study team members; and,
 - ✓ Minutes of consultations.

Annex 12: Grievance Redress Mechanism

IFAD has introduced a Grievance Redress Service (GRS) requiring the Borrower to provide a grievance mechanism, process, or procedure to receive and facilitate resolution of stakeholders' concerns and grievances arising in connection with the project and the Borrower's environmental and social performance. According to the GRS project-affected communities and individuals may submit complaints regarding IFAD financed project to the appropriate local grievance mechanism, or the IFAD's corporate Grievance Redress Service (GRS).

The table depicted below shows a generic grievance redress mechanism that can be applied to the proposed project activities.

Steps	Process	Description	Time frame	Other information
1	Identification of grievance	Face to face; phone; letter, e-mail; recorded during public/community interaction;	1 Day	Email address; hotline number
2	Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a log book)	4-7 Days	Significance criteria Level 1 – one off event; Level 2– complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or this ESCMF/RPF provisions
3	Grievance is acknowledged	Acknowledgement of grievance through appropriate medium	7-14 Days	
4	Development of response	<ul style="list-style-type: none"> Grievance assigned to appropriate party for resolution Response development with input from management/ relevant stakeholders 	4-7 Days 10-14 Days	
5	Response signed off	Redress action approved at appropriate levels	4-7 Days	Senior management staff of DBE should sign

6	Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant	10-14 Days	
7	Complaints Response	Redress action recorded in grievance log book Confirm with complainant that grievance can be closed or determine what follow up is necessary	4-7 Days	
8	Close grievance	Record final sign off of grievance. If grievance cannot be closed, return to step 2 or refer to sector minister or recommend third-party arbitration or resort to court of law	4-7 Days	Final sign off by Senior management of DBE

Annex 13: Stakeholder's Database

NO.	Name & Surname	Department	Designation	Email Address	Phone No.	Signature
1						
2						
3						
4						

Annex 14: Issue and Response Table

Issue	Sub Issue as Perceived by Potentially Affected Populations	Questions/Comments from Stakeholders	Response/Feedback

Annex 15: Grievance Resolution Form**GRIEVANCES REGISTER / GRIEVANCE RESOLUTION FORM**

About the PAP			
Name & Surname	District	Community council/village (type of sub projects)	Stakeholder (employee, PAP, community)
1.			
2.			
3.			
4.			

About the Complaint				
Reporting method (F2F, suggestion box, online, social media, email, in writing, feedback forms)	Type of grievance (administrative or operational)	Root cause of the grievance (see also Explanations tab and List of Root Causes)	Outcome	If a resolution was offered please indicate 'accepted' or 'not accepted'.
1.				
2.				
3.				
4.				

Method of Resolution	Escalation	Notes
Methods of resolution (optional) eg: negotiated, mediated, apology	Escalation of grievance	
1.		
2.		