FOR OFFICIAL USE ONLY

Report No: PAD1209

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED GRANT

IN THE AMOUNT OF US$61.95 MILLION

TO THE

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

FOR AN

OROMIA FORESTED LANDSCAPE PROGRAM - EMISSION REDUCTION PROJECT

RVP/CD CLEARANCE DATE

Environment, Natural Resources, and The Blue Economy Global Practice
Africa East Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective)

Currency Unit =	Ethiopian Birr (ETB)
ETB =	US$1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

A/R	Afforestation/Reforestation
AFOLU	Agriculture, Forest, and Other Land Uses
AGP	Agricultural Growth Project
ANR	Assisted Natural Regeneration
BioCF	BioCarbon Fund
BMERRP	Bale Mountains Eco-Regional REDD+ Project
BoA	Bureau of Agriculture
BoF	Bureau of Finance
BoL	Bureau of Land
BoWERD	Bureau of Water and Energy Resources Development
BSP	Benefit Sharing Plan
BSM	Benefit Sharing Mechanism
CALM	Climate Action through Landscape Management
CATS	Carbon Assets Trading System
CBO	Community-Based Organization
CCDC	Continuous Change Detection and Classification
CDM	Clean Development Mechanism
CODED	Continuous Degradation Detection
CRGE	Climate Resilient Green Economy
CSA	Central Statistical Agency
EFD	Ethiopian Forest Development
EGSII	Ethiopian Geospatial Information Institute
EPA	Environmental Protection Authority
ER	Emission Reduction
ERC	Emission Reduction Credit
ERPA	Emission Reductions Purchase Agreement
ERPD	Emission Reduction Program Document
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESRM	Environmental and Social Risk Management
ESS	Ethiopian Statistical Service

EWCA	Ethiopia Wildlife Conservation Authority
FCPF	Forest Carbon Partnership Facility
FDRE	Federal Democratic Republic of Ethiopia
FM	Financial Management
FMC	Forest Management Cooperative
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoE	Government of Ethiopia
GPS	Global Positioning System
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GTP	Growth and Transformation Plan
GTP-2	Second Growth and Transformation Plan
FAO	Food and Agriculture Organization
IFC	International Finance Corporation
IFMIS	Integrated Financial Management Information System
IFR	Interim Financial Report
IPCC	Intergovernmental Panel on Climate Change
IPF	Investment Project Financing
ISFL	Initiative for Sustainable Forest Landscapes
JICA	Japan International Cooperation Agency
LFSDP	Livestock and Fisheries Sector Development Project
LLRP	Lowlands Livelihood Resilience Project
LMP	Labor Management Procedures
LULUCF	Land Use, Land Use Change, and Forestry
M&E	Monitoring and Evaluation
MMS	Manure Management Systems
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MRV	Monitoring, Reporting, and Verification
NCB	National Competitive Bid
NDC	Nationally Determined Contribution
NFMS	National Forest Monitoring System
NGO	Nongovernmental Organization
NPV	Net Present Value
NRS	National REDD Secretariat
NTFP	Non-Timber Forest Product
OEPA	Oromia Environmental Protection Authority
OFAG	Office of the Federal Auditor General
OFLP	Oromia Regional State Forested Landscape Program
OFLP-ERP	Oromia Forested Landscape Program-Emission Reduction Project
OFWE	Oromia Forest and Wildlife Enterprise
ORCU	Oromia REDD+ Coordination Unit
PDO	Program Development Objective

PF	Process Framework
PFM	Participatory Forest Management
PIU	Project Implementation Unit
PPSD	Project Procurement Strategy for Development
PSNP	Productive Safety Net Program
REDD+	Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forests, Sustainable Forest Management, and Enhancement of Forest Carbon Stocks
RETF	Recipient-Executed Trust Fund
RFQ	Request for Quotation
RIP	REDD Investment Project
RLLP	Resilient Landscapes and Livelihoods Project
RPF	Resettlement Policy Framework
SEA/SH	Sexual Exploitation and Abuse and Sexual Harassment
SEP	Stakeholder Engagement Plan
SESA	Strategic Environmental and Social Assessment
SLMP	Sustainable Land Management Program
SNNP	Southern Nations, Nationalities, and Peoples
STEP	Systematic Tracking of Exchanges in Procurement
TPM	Third-Party Monitoring
ToR	Terms of Reference
T2EF	Tier 2 emission factor
UNFCCC	United Nations Framework Convention on Climate Change
WoF	Woreda Office of Finance
WoL	Woreda Office of Land

Regional Vice President:	Victoria Kwakwa
Country Director:	Ousmane Dione
Regional Director:	Ayat Soliman
Practice Manager:	Iain Shuker
Task Team Leader(s):	Nicholas Stephen Zmijewski, Nigel Ross Hughes

TABLE OF CONTENTS

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Ethiopia	Oromia Forested Landscape Program – Emission Reduction Project	
Project ID	**Financing Instrument**	**Environmental and Social Risk Classification**
P151294	Investment Project Financing	Substantial

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
25-Nov-2022	

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The project will generate measured, reported and verified Emissions Reductions (ER) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), agriculture and other land use sectors that meet the GHG accounting requirements of the BioCF ISFL in the Oromia State and will distribute ER payments in accordance with an agreed benefit sharing plan.

Components

Component Name	Cost (US$, millions)
Emission Reductions payments distributed in accordance with agreed Benefit Sharing Plan	60,000,000.00
Comprehensive Measurement, reporting and verification (MRV) system and program management including Safeguards Management system	1,950,000.00

Organizations

Borrower:	Federal Democratic Republic of Ethiopia
Implementing Agency:	Ethiopia Forest Development

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	61.95
Total Financing	16.95
of which IBRD/IDA	0.00
Financing Gap	45.00

DETAILS

Non-World Bank Group Financing

Trust Funds	16.95
BioCF Tranche 3	15.00
BioCFplus Initiative for Sustainable Forest Landscapes	0.75
Global P'ship for Sust. and Resilient Landscapes - PROGREEN	1.20

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028	2029
Annual	0.75	12.40	3.31	0.14	0.14	0.14	0.07
Cumulative	0.75	13.15	16.46	16.60	16.74	16.88	16.95

INSTITUTIONAL DATA

Practice Area (Lead)
Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	High
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Section 3.03: Within twelve (12) months after signature of the first phase ERPA, fulfillment of the Conditions for the obligations to sell and purchase Emission Reductions as per the ERPA.
If the Conditions is not fulfilled, the Trustee may, at its discretion either extend the Conditions Fulfillment Date or terminate this ERPA Phase Agreement and the ERPA Framework Agreement by written notice to the Program Entity.

Sections and Description

General Conditions Section 5.01: The Program Entity shall monitor and report to the Trustee on the implementation of the Safeguards Plans annually after the date of the ERPA Framework Agreement throughout the Term.

Sections and Description

General Conditions Section 5.01: The Program Entity shall first monitor and report to the Trustee on the implementation of the Benefit Sharing Plan six (6) months after receipt of the first Periodic Payment and annually thereafter.

Sections and Description

General Conditions Section 5.01: Within one hundred eighty (180) calendar days following the end of each Reporting Period, the Program Entity shall provide the Trustee with an ER Monitoring Report for that Reporting Period

Conditions

Type	Financing source	Description
Disbursement	Trust Funds	Only for the ERPA - General Condition Section 5.01: Submission of the Monitoring report satisfactory to the Bank, which provides in Annex: (a) evidence satisfactory to the Trustee that the ISFL ER Program Measure(s) are being implemented in accordance with the Safeguards Plans and that the Benefit Sharing Plan has been implemented in accordance with its terms and (b) information on the generation and/or enhancement of Non-Carbon Benefits.
Type	Financing source	Description
Disbursement	Trust Funds	Only for the ERPA - Section 3.01 & Schedule 1: a Letter of Approval;
Type	Financing source	Description
Disbursement	Trust Funds	Only for the ERPA - Section 3.01 & Schedule 1: a final Benefit Sharing Plan for the first ERPA Phase;
Type	Financing source	Description
Disbursement	Trust Funds	Only for the ERPA - Section 3.01 & Schedule 1: a letter confirming the application of the ISFL Buffer, the ISFL Buffer Requirements and the Registry;
Type	Financing source	Description
Disbursement	Trust Funds	Only for the ERPA - Section 3.01 & Schedule 1: evidence demonstrating the Program Entity's ability to transfer Title to ERs, free of any interest, Encumbrance or claim of a Third Party.
Type	Financing source	Description
Disbursement	Trust Funds	Submission of copies of one or more executed Sub-Project Arrangement(s) between the Program Entity and the Sub-Project Entities required to implement the ISFL ER Program during this ERPA Phase

I. STRATEGIC CONTEXT

A. Country Context

1. **Ethiopia has achieved substantial progress in economic, social, and human development over the past decade, achieving rapid and inclusive economic growth averaging 9.2 percent a year from 2010/11 to 2019/2020.** The high growth rates have also been accompanied by structural transformation. This is evidenced by the fact that the share of the agricultural sector to gross domestic product (GDP) decreased from 45.7 percent in 2010/11 to 32.7 percent in 2019/20, while the construction and services sectors contributed to most of the growth. The share of the constructions and the service sectors from the total GDP reached as high as 21.1 and 39.5, respectively, in 2019/20. The proportion of the population living below the national poverty line fell from 29.6 percent in 2010/11 to 23.5 percent in 2019/20.[1] Low levels of inequality have been maintained throughout this period. Nonmonetary dimensions of well-being also show strong improvement. Life expectancy increased from 52 to 64 years between 2002/3 and 2014/15.

2. **Demographic growth and climate risks, however, are placing increasing pressures on the natural resource base.** Ethiopia is the second most populous country in Africa with a population of more than 100 million people[2] and will grow to at least 120 million by 2030. Up to 80 percent of the population is rural and directly dependent for livelihoods and energy on land, forest, and water resources, while urban centers also depend on them for food, water, and energy. Most of the rural population are smallholder farmers who practice low input and low output farming in fragmented land. The economy therefore is highly vulnerable to the impacts of climate change mainly due to high dependence on rain-fed agriculture, which employs close to 80 percent of the country's labor force and has relatively low adaptive capacity to deal with climate impacts. There is compelling evidence of climate change in Ethiopia over the last 50 years, where temperatures have increased by an average of around 1°C since the 1960s. Rainfall is subject to high variability between years, seasons, and regions and extreme weather events being common, especially droughts and floods with indication that the incidence of droughts and floods may have increased in the last 10 years relative to the decade before.[3]

3. **Natural resources have been deteriorating over time, which amplifies exposure to substantial environmental and climate risks that affect food and water security, energy, and human health, among other things**. Land degradation in Ethiopia has proceeded at an alarming rate and will be increasingly aggravated by climate change. From 1981 to 2003, 296,812 km^2 (29.7 million ha) of land has been degraded, affecting a population of 20.65 million. Conservative estimates suggest that land degradation, partly as a result of increased soil erosion, will reduce agricultural crop productivity in Ethiopia by 5–10 percent by 2030 and thereby reduce Ethiopia's GDP up to 10 percent by 2045. Decreased agricultural crop productivity would aggravate existing social and economic challenges as close to 80 percent of Ethiopians are engaged in subsistence rain-fed agriculture. Meanwhile, farms are already under significant climate stress.

4. **Deforestation and forest degradation has greatly contributed to land degradation in Ethiopia.** At the national level, the rate of deforestation and forest degradation ranges from 140,000 to 200,000 ha

[1] Planning and Development Commission (PDC), 2021.
[2] CSA (Central Statistical Agency) 2013.
[3] Climate Resilient Strategy for Agriculture and Forestry 2015.

per year and has resulted in severe land degradation and loss of biodiversity. On deforestation alone, Ethiopia loses about 73,000 ha of forest per year,[4] that is, losing close to 0.5 percent of natural forest every year. This is a high figure compared to neighboring Kenya's 0.03 percent rate of deforestation.[5] Forest degradation in Ethiopia is mainly the result of unsustainable consumption of wood for fuel. Unless the growing demand is matched with proper forest development, the future scenario will be more deforestation, degradation of existing forest, and increased shortage of wood resources and increased importation. A forecast by the Climate Resilient Green Economy (CRGE 2011) indicates that without action to change the country's forestry development path, 90 000 km^2 (56 percent of total existing forest area) could be degraded between 2010 and 2030. Over the same period, annual wood fuel consumption could rise by 65 percent, leading to more degradation of woodlands and forests, including plantation stands.[6] The main direct drivers of deforestation and forest degradation are small-scale agricultural expansions and fuelwood consumption, and to a lesser extent, illegal logging and forest fires. Large-scale agricultural investments have been identified as another important driver, which until recently were promoted by the Government as a vehicle for rural development and economic growth. Overgrazing, settlement, and uncontrolled tree harvesting, and utilization also contribute to deforestation and forest degradation.

5. **Ethiopia's development agenda is governed by several policy instruments and key strategies.** These are the CRGE (2011–2030) that has been endorsed since 2010, the Second Growth and Transformation Plan, (GTP-2) (2016–2020), the Ten-Year Development Plan (2021–2030), the Updated Nationally Determined Contribution (NDC-Update 2021), and the Low Emission Development Strategy 2050. All these strategies and instruments prioritize attainment of middle-income status by 2025 and achievement of this by adopting low carbon, resilient, green growth actions. These policy actions and strategies (particularly the overarching CRGE and NDC) emphasize the agricultural sector, particularly the livestock, land conversion, and forestry sectors, which are expected to remain the main contributors to the greenhouse gas (GHG) emissions. Land use change and forest and livestock will represent, respectively, 35 percent and 48 percent of the total business as usual emissions by 2030.[7] The CRGE Strategy was mainstreamed into GTP-2 of the 2016–2020 period and the current Ten-Year Development Plan (2021–2030).

6. **Fragility and conflict situation in Ethiopia is the product of long-standing grievances, exacerbated by climate change**. Ethiopia has had a significant increase in violence and conflict situations across the country in recent years, mostly due to underlying drivers of fragility, conflict and violence (FCV). Ethiopia has a history of long-standing conflicts which are underpinned by structural factors, including resource competition, deep-seated real and/or perceived inequalities, and border disputes, all of which are aggravated by the hardening of ethnic identities and narratives of discrimination and resulted in group-based grievances. These structural factors have led to the emergence of an armed conflict between the Tigrayan Forces and the Ethiopian National Defence Forces in Tigray since November 2020, affecting most of Tigray and parts of Amhara and Afar. The conflict has caused thousands of casualties and destruction of civil infrastructure and precipitated a widespread humanitarian crisis, with high levels of internal displacement and food insecurity. The current FCV landscape in Ethiopia is the product of old and

[4] Ethiopian National Forest Inventory (NFI), 2018.
[5] FAO. 2020. *Global Forest Resource Assessment, Ethiopia*.
[6] National Forest Sector Development Program 2018.
[7] NDC Update 2021.

new grievances, local and national politics, neglect, and frustration of the younger generation, which are exacerbated by climate change and land degradation, and diminishing resources, among other factors.

Oromia National Regional State

7. **Oromia is one of the 11 regional states under the Federal Democratic Republic of Ethiopia (FDRE).** Oromia shares a boundary with almost every region except Tigray. It is the largest region in terms of area (about 30 million ha) and population (over 30 million). Agriculture, livestock, and services constitute the dominant economic sectors of the region. More than 88 percent of the population of the region makes a living from the land in rural areas (that is, agriculture including livestock). The region is also home to the largest livestock population in Ethiopia, 24.4 million.[8] Overall, the poverty rate in Oromia has decreased from 28.7 percent in 2011 to 23.9 percent in 2016.[9]

8. **Oromia hosts close to 52 percent of national forest resources, which provide critical ecosystem services, products for livelihoods, and employment to the country as a whole and region in particular.** The forest cover of the region is estimated at approximately 9 million ha in total.[10] According to the national forest definition,[11] most of Oromia's rural woredas possess some amount of forest cover within their borders.[12] Most of Oromia's high forest (moist montane forests) is found in the Bale landscape in the Southeast and the Jimma/Wollega/Ilubabor landscape in the West. Bale serves as the water tower for Ethiopia's eastern dry lands in Oromia and the Ethiopian Somali Regional State as well as for the Federal Republic of Somalia, drought-vulnerable arid areas where mobile pastoralism is the predominant livelihood system. Oromia harbors globally important biodiversity with endangered endemic species such as the Ethiopian wolf (*Canis simensis*) and the Mountain Nyala (*Tragelaphus buxtoni*). Oromia's western forests are home to endemic coffee (*Coffea arabica*) that has high potential as an export commodity item and harbor wild varieties of the species.

9. **Soil erosion is the most widespread form of land degradation in the region.** The average erosion rate for agricultural land has been estimated at about 40 tons per ha, but there is wide variation between different parts of the region and between production systems.[13] Several factors contributing to erosion include rugged topography with steep slopes and a thin soil layer accelerated by increased agricultural activities and high amount of rainfall concentrated in a limited period during the year, which also contributes to erosion as rainfall intensity is a more important factor that has been exacerbated by traditional cultivation practices in which land is tilled before and left bare and loose during the main rainy season. Loss of forest and other vegetation cover over time due to population pressure and expansion of farmland has also greatly contributed to erosion rates over a large part of the region.

10. **Oromia has experienced a marked increase of FCV situations.** Oromia was a catalyst for the political movement in 2014 during which protests sparked by land disputes and motivated by high levels

[8] CSA. 2018. *Agricultural Sample Survey 2017/18, Volume II Report on Livestock and Livestock Characteristics (private peasant holding)*.
[9] World Bank. 2020. *Ethiopia Poverty Assessment Report*.
[10] Calculated using Ethiopia's Forest Reference Emissions Level Submission to the United Nations Framework Convention on Climate Change (UNFCCC) (Third version, December 2016, not publicly available yet).
[11] The Forest Sector Management at the then Ministry of Environment, Forest and Climate Change (MEFCC) defines forests in Ethiopia as "Land spanning at least 0.5 ha covered by trees (including bamboo) attaining a height of at least 2 m and a canopy cover of at least 20% or trees with the potential to reach these thresholds in situ in due course."
[12] Most of the rural woredas have at least 5 ha of forest (2013 Ethiopian Mapping Agency maps).
[13] OFLP ERPD 2021.

of under- and unemployment were led by the Oromo youth. However, Oromia has also seen an increase in violent attacks in recent years, which resulted in significant civilian casualties, insecurity and internal displacement. For instance, the East/West Hararghe region of Oromia has been a hotbed of violence, protests and riots since late 2019. During these riots, ethnic minorities were attacked throughout the Oromia region. These regions within Oromia also have a long-standing territorial dispute along the border with the Somali region, which is a source of regular clashes on the border. In West and Kellem Wollega, OLF-Shane, a splinter faction of the Oromo Liberation Front, has been involved in violent operations, challenging government rule through killing civilians, particularly members of the Amhara ethnic group, local administrators and capturing territory. Violent clashes between the OLF-Shane and the government forces have caused a number of civilian deaths, displacement and insecurity over the last two years in the Oromia region.

B. Sectoral and Institutional Context

11. **Agriculture, forest, and other land uses (AFOLU) sectors represent an important source of emissions in Oromia.** The total sum of absolute emissions (minus removals) of the Oromia Regional State by category and subcategory for land use, land use change, and forestry (LULUCF) and agriculture sectors (AFOLU) from 2008 to 2017 according to the Emission Reduction Program Document (ERPD 2021) is estimated at 771,756 $ktCO_2$-eq (772 $MtCO_2$-eq) and the yearly average absolute emission for the same period is estimated at 85,750 $ktCO_2$-eq (85 $MtCO_2$-eq). Figure 1 below shows emissions by categories and subcategories as depicted in the Oromia Forested Landscape Program (OFLP) ERPD. Further descriptions of the GHG inventory for Oromia are provided in annex 2.

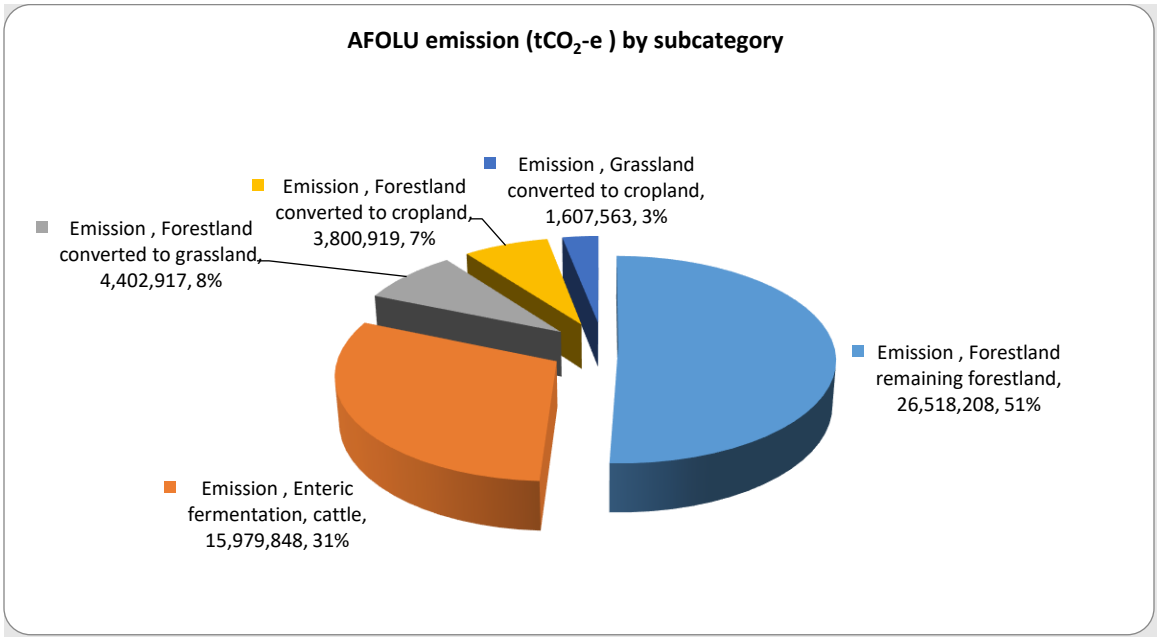


Figure 1. AFLOU Emission and Removal by Category – Oromia (source: ERPD)

12. **Forest degradation (emissions from the forestland remaining forestland) is the highest source of emissions in the forest sector.** Together with deforestation (forestland being converted into cropland or grassland), they represent about two-thirds of the emissions from the rural sector.

13. **Enteric fermentation and manure management from dairy and non-dairy cattle are the largest non-forest-related sources of emissions in Oromia.**[14] Methane (CH_4) and nitrous oxide (N_2O) are the primary GHGs emitted because of agricultural activities. High methane emission occurs mainly as a result of enteric fermentation, whereas agricultural soil management contributes with N_2O emissions. Domestic livestock is the major source of CH_4 emissions from agriculture, both from enteric fermentation and manure management.

14. **From Oromia's 24.4 million total cattle population, 45 percent is estimated to be dairy animals.** The key driver of emission in this subcategory rests on cattle population combined with low efficiency and relatively high emission intensity (that is, emissions per unit of product) especially in dairy cattle. The estimated average GHG emission is 19 kg CO_2eq per kg milk among mixed crop-livestock systems in Ethiopia against an average of 9 kg CO_2eq per kg milk in Sub-Saharan Africa. Causes for the low efficiency include inadequate supply of quality feed, poor animal health due to disease prevalence, low quality of livestock genetic makeup, poor manure management, low reproductive efficiency and weak herd management, limited adoption of improved livestock practices and poor provision of livestock support services, and finally low commercial market off-take due to inadequate processing and marketing infrastructure.[15]

Governance of the Forest Sector

15. **Forest loss and forest degradation are increasing in Oromia.** Deforestation in Oromia has been particularly intense in zones[16] in the west (West Wollega, Kelem Wollega, and Ilubabor) and east (Bale and Guji). Throughout Oromia, 499,135 ha of forest was lost between 2000 and 2013 or around 38,395 ha per year. At the same time, the historic afforestation/reforestation (A/R) rate is 5,238 ha per year.[17]

16. **Deforestation and forest degradation in Oromia are driven primarily by small-scale conversions for agricultural expansion and wood extraction for firewood and charcoal purposes.** Subsistence agriculture is the main economic activity throughout Oromia, with farmers cultivating diverse crops such as barley, wheat, beans, potatoes, and cabbage in highlands and bananas and maize in lowlands. Extraction of fuelwood is a driver of degradation throughout Ethiopia, which is also the same for Oromia. Firewood is the primary source of energy for 94 percent of the population and the most important forest product consumed in Ethiopia and Oromia, with the total consumption exceeding 116 million m^3 in 2013 at the national level. Most firewood is produced from natural forests, including woodlands and shrublands, and the current firewood demand is estimated to significantly exceed the sustainable yield potential of the remaining forest areas. Indirect drivers include inadequate development and implementation of land use plans, weak cross-sectoral policy and investment coordination, population growth and migration into forested areas, and road expansion.

17. **Forests in Oromia are managed, affected, or used by a range of government institutions and citizens.** Almost all forested areas in the region fall under the mandate of Oromia authorities, including

[14] ERPD 2021.
[15] FAO and New Zealand Agricultural Greenhouse Gas Research Centre (2017).
[16] Zones are administrative units in Ethiopia. Regional states are divided into zones, which are subdivided into woredas and then kebeles.
[17] All figures are calculated based on Ethiopia's March 2017 Forest Reference Level Submission to the UNFCCC.

the newly established Oromia Environmental Protection Authority (OEPA).[18] In addition, to OEPA, the Oromia Forest and Wildlife Enterprise (OFWE)—a quasi-governmental entity—has a significant role in conserving, managing, and using forest resources in the region. The OFWE, through its forest concession granted by regional regulation (Regulation to Provide for the Establishment of Oromia Regional State Forest and Wildlife Enterprise No. 122/2009), manages more than 3 million ha of natural forests (including few parks and protected areas within) and some 65,000 ha of plantation forests, where it also exercises harvesting and marketing of timber and non-timber forest products (NTFPs) (coffee, gum and resin, spice, and so on), with all revenue channeled to the regional government. The OFWE also generates revenue from protected areas and is mandated to administer trophy hunting and other uses of protected areas. The OFWE is one of the key implementers of the OFLP in the region, where its role in promoting participatory forest management (PFM) and related livelihood interventions is crucial. Other regional bureaus responsible for agriculture, land use planning, energy, and water are also central to forests and land-based resource use and management. Within the Oromia region, the Bale Mountains National Park and four other protected areas are under the mandate of the Ethiopia Wildlife Conservation Authority (EWCA), a federal institutional body mandated to administer all federal level legislated protected areas.[19]

18. Both OEPA and the OFWE are decentralized to zonal and woreda levels with their respective subsidiary zonal (branch) and woreda (district) offices, thus cascading development activities at local levels. Below woredas, kebele administrations and forest management cooperatives (FMCs), where they exist, are responsible for managing forest resources within their jurisdiction. At the federal level, until recently, the policy mandates for forest conservation, management, and utilization were bestowed to the Environment, Forest, and Climate Change Commission. But, due to recent federal-level institutional rearrangements, the Environment, Forest, and Climate Change Commission has split into two entities: the Environmental Protection Authority (EPA), which comes under the Ministry of Planning and Development, and the Ethiopian Forest Development (EFD), which will come under the Ministry of Agriculture (MoA). The regulation for the establishment of the EFD was recently approved and became official. The federal institution given the policy mandate for managing climate change is not yet clearly indicated but is expected to be clarified with the approval of the regulation for the establishment of the EPA, which is still under review by the Council of Ministers.

Governance of the Livestock Sector

19. An entity with policy mandates at the federal level concerning livestock management principally is the MoA and its Livestock Sector Office headed by a state minister. At the regional level (Oromia), it also falls under the Bureau of Agriculture (BoA). The BoA likewise cascades its livestock extension and development activities to subsidiary woreda agriculture offices. Below the woreda, mandates are given to kebele administrations, with dairy/fattening cooperatives and private producers existing where these are feasible. The Federal Meat and Dairy Institute, World Bank-financed projects such as the Livestock and Fisheries Sector Development Project (LFSDP, P159382) and Lowland Livestock Resilience Project (LLRP, P164336, P178107) and their regional Project Implementation Units (PIUs), livestock research centers,

[18] The Oromia Environment, Forest, and Climate Change Authority (OEFCCA) was set up by Proclamation 199/2016 on July 20, 2016, and later renamed the Oromia Environmental Protection Authority (OEPA).
[19] These four other national protected areas are Awash National Park, Abijata Lake National Park, Babile Elephant Sanctuary, and Senkele Wildlife Sanctuary.

and animal health centers existing at every level and related academic institutions, all contribute to research, extension, and development in the sector.

Readiness of Ethiopia and Oromia State for REDD+[20] and Climate Finance

20. A decade ago, Ethiopia disclosed its intention to use climate financing related to the REDD+ initiative to achieve its national ambition for green growth, as was articulated in GTP-2 and the CRGE Strategy to help address impacts of climate change and achieve Ethiopia's CRGE Strategy objectives on land use change, forest, and climate action.

21. With US$13.6 million as grant financing for REDD+ Readiness from the World Bank[21] through the BioCarbon Fund (BioCF) and the Forest Carbon Partnership Facility (FCPF), the Government of Ethiopia (GoE) has completed its National REDD+[22] Readiness Program, thus making the country ready for receiving and deploying climate financing and other related financing from global and local sources. In particular, the GoE has successfully implemented the following set of REDD+ 'readiness' activities: (a) developed a measuring, reporting, and verification (MRV) system that will be used for measuring the emission reduction (ER) achieved by the program, which will be used to trigger results-based payments; (b) developed a system for social and environmental risk management; (c) prepared the National REDD+ Strategy; and (d) established and operationalized the Oromia REDD+ Coordination Unit (ORCU), an entity to spearhead the design and development of the OFLP.

22. In addition, as part of this long-term vision, the Government, with financing from the BioCF, launched the preparation and institutionalization of four REDD+ pilots (Amhara; Tigray; Southern Nations, Nationalities, and Peoples [SNNP] Regional State; and Oromia) to test different elements of the National REDD+ Readiness Program. The lessons learned from these pilots was anticipated to inform the National REDD+ Readiness Program and assist Ethiopia to receive and deploy results-based climate financing. In Oromia, the pilot project was the OFLP. However, the other three REDD+ pilots supposed to support the transition from readiness to implementation have not yet materialized.

23. Other pilots such as the Humbo Assisted Natural Regeneration Project[23] (ANR) have demonstrated proof of concept of carbon financing for improved land use in a relatively small, degraded landscape. Yet, moving to scale presents more complex challenges. The FDRE[24] selected the Oromia National Regional State to test this large-scale jurisdictional REDD+[25] operation as it has the largest forest cover in the

[20] REDD+ = Reducing Emissions from Deforestation and Forest Degradation, Conservation of Forests, Sustainable Forest Management, and Enhancement of Forest Carbon Stocks.
[21] The World Bank provided two trust funds that directly support REDD+ Readiness in Ethiopia: (a) a US$3.6 million grant from the FCPF signed in October 2012 and (b) a supplemental US$10 million grant from the BioCF signed in July 2014 for the FDRE to complete its REDD+ Readiness process and prepare investment pilots, including the OFLP.
[22] REDD+ stands for countries' efforts to REDD and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks (www.forestcarbonpartnership.org).
[23] This is a World Bank-supported carbon finance project that rehabilitated 4,000 ha of degraded areas and, by doing so, receives payment for the carbon sequestered. It was the first project in Africa to be registered as a Clean Development Mechanism (CDM) A/R Project.
[24] For the OFLP, the REDD+ jurisdictional approach refers to fostering the reduction of deforestation and forest degradation in a political or administrative region within a country. In this case, the political and administrative region is the Oromia Regional State.
[25] For the OFLP, the REDD+ jurisdictional approach refers to fostering the reduction of deforestation and forest degradation in a political or administrative region within a country. In this case, the political and administrative region is the Oromia National Regional State.

country, suffers the fastest rates of deforestation, and is where strategically important rivers originate. The Oromia region also hosts the first REDD+ project in Ethiopia—the Bale Mountains Eco-Regional REDD+ Project (BMERRP)—led by the OFWE and supported by Farm Africa, lessons from which informed design of the OFLP. The OFLP is considered a model for implementing REDD+ nationally and is considered a federal program.

24. In addition to contributing reduced emissions of importance at the global level, the OFLP is anticipated to also deliver a wide range of 'non-carbon' benefits. Improved management and conservation of existing natural forests and reforestation and afforestation activities will help sustain and protect important ecosystem services such as watershed protection, slope stabilization, and reduction of sediment flows into rivers and waterbodies. They will also protect and create resources for use by local populations that provide 'safety nets' in times of environmental and economic shocks and, in so doing, enhance the resilience of local communities. Forest-based livelihood activities and investments to be financed through the distribution of benefits resulting from the sale of ERs will also contribute to income generation and enhanced local livelihoods.

25. The OFLP was established in successive phases.

(a) First, a grant financed by the BioCF is strengthening the enabling environment at the state and local levels, supporting action for landscape restoration in priority deforestation hotspots, and improving the livelihoods of the local people. The grant is financing the strengthening of institutions, policies, marketing, and Benefit Sharing Plan (BSP); improving information (that is, strategic communication and MRV); and strengthening safeguards management at the state and local levels.

(b) Enabling investment activities funded by the same BioCF grant is also financing investments in PFM (also livelihoods support and selected nature-based community enterprise development), reforestation in deforestation hotspots, and extension services and land use planning support at the state and local levels.

(c) Additionally, two types of REDD+ relevant initiatives were implemented in the region: (i) result-based REDD+ projects that seek to sell Emission Reduction Credits (ERCs), such as the BMERRP[26] and the REDD+ Joint Participatory Forest Management Project Phase II in South-West Ethiopia (REPAFMA II - SW Ethiopia) and (ii) initiatives that contribute to REDD+ goals but are not seeking to account for and sell ERs, such as the World Bank-financed Resilient Landscapes and Livelihoods Project (RLLP, P163383) and the Climate Action through Landscape Management (CALM) Program for Results (P170384). Annex 3 lists investments supporting the REDD+ vision in Oromia.

(d) Finally, results-based payments for verified ERs covered by this document, which will establish a legal framework agreement called an Emission Reductions Purchase Agreement (ERPA). This would comprise a jurisdictional instrument aiming to purchase up to US$40 million of ERCs over the next eight years (2022–2029)—a major step toward large-scale climate finance for nature-based mitigation in Ethiopia.

[26] The BMERRP operated for more than a decade and ended in 2019 but has expanded its non-carbon-seeking activities to the surrounding woredas for additional years (until 2025) to mitigate the potential impact of deforestation and forest degradation in the project area.

26. The OFLP, as a program, encompasses both the past and current investment projects and the upcoming carbon finance instruments. It is managed by the ORCU within the OEFCCA Oromia Environment, Forest, and Climate Change Authority now renamed the Oromia Environmental Protection Authority (OEPA). The Oromia vice-presidency chairs the OFLP Steering Committee and further coordinates interventions across sectors fulfilling the OFLP goals.[27]

27. **The design features and agreed approach for implementing the OFLP were to nest/merge existing REDD+ projects into the Oromia Forested Landscape Program-Emission Reduction Project (OFLP-ERP) once the ERPA is signed**. The OFLP was designed to allow existing and potential REDD+ projects to directly account for ERs generated at the projects' level to attract new sources of financing and mobilize more technical partners in support of the program. However, these projects will not be able to sell ERCs to third parties before those contracted by the BioCF are fully delivered. These projects will be nested/merged within the OFLP and will be governed by the same rules for coordinating all ongoing and planned REDD+ projects in Oromia—including consistency in the approach to set the baseline (reference emissions level), the same benefit sharing rules, consistency in measuring and reporting on ERs, systems to avoid double counting of ERs, and consistency in how social and environmental sustainability approaches are applied following the World Bank's safeguard policies and procedures.

28. **All the technical aspects of the ERP are described in the ERPD.** The ERPD is the document used to assess the quality of ERs that will be generated by the OFLP, issued and registered by the Initiative for Sustainable Forest Landscapes (ISFL) and later purchased either by the ISFL or third-party buyers. It includes (a) a detailed analysis of the emissions in the jurisdiction and the assumptions for the baseline and an assessment of the quality and precision of the measurement; (b) a description of the institutional arrangements, including for the MRV and the safeguards; (c) a description of the BSP; and (d) a clarification on the legal aspects related to the ownership of the ERC and the transfer of titling.

C. Relevance to Higher Level Objectives

29. **The OFLP, which includes this Emission Reduction Project (OFLP-ERP),** contributes to key national strategies, including the Ten-Year Prospective Development Plan; the NDC updated in July 2021; the Ethiopian Food System; GTP-2; the CRGE Strategy and accompanying 2015 Climate Resilience Strategies for Agriculture and Forest; the National Forest Sector Strategy and National REDD+ Strategy; and sector strategies for energy, water, and agriculture**.** Specifically, it will help deliver on goals on economic growth, poverty reduction, jobs, food and water security, forest protection and expansion, climate change adaptation and mitigation, conservation of biodiversity, and development of mechanisms for payment for ecosystems services. Key objectives from the CRGE and the recently updated NDC[28] include, but are not limited to, the following: (a) reduction of 68.8 percent (–277.7 $MtCO_2e$) in comparison with the revised 'business as usual' emissions in 2030 through conditional pathways on international support and Ethiopia's unconditional efforts and (b) improvement of resilience to climate change. Key objectives from GTP-2 include expanding forest cover by 5 million ha nationwide. As depicted in the updated NDC, based on Ethiopia's Forest Sector Development long-term plan, net emission removals in

[27] The program will complement and be coordinated with significant investments that are already being made in the Oromia Regional State including World Bank-financed operations, such as the Sustainable Land Management Program (SLMP), Agricultural Growth Project (AGP), and Productive Safety Net Program (PSNP) and projects not financed by the World Bank such as the BMERRP, the Government's Green Legacy Initiative, and REDD+ Joint Forest Management in Southwest Ethiopia II (REJFMA-SW Ethiopia II) Project.

[28] The updated NDC was submitted to the UNFCCC in July 2021.

LULUCF can be realized through (a) massive reforestation and restoration of a total of up to 15 million ha and (b) the Green Legacy Initiative and Reducing Emissions from Deforestation and Forest Degradation (REDD+) strategic actions. Realizing this ambitious plan will increase forest cover to 30 percent of the national territory by 2030. Moreover, significant number of beneficiaries will be capacitated and supported to adopt climate-smart agriculture and livestock management, and subsequently proportional agriculture land and livestock will be converted from conventional farming into climate-smart agriculture and livestock management, respectively.

30. **The OFLP helps deliver on the World Bank's twin goals of ending extreme poverty and boosting shared prosperity by 2030, the 2016 Systematic Country Diagnostic, the FY18–22 Country Partnership Framework approved in May 2017, and the World Bank Forest Action Plan 2016.** The rationale for convening resources programmatically for forest management in Ethiopia is to harness the potential of forested and agriculture landscapes and other land uses to help reduce poverty equitably by investing in natural wealth and resilient, low carbon growth (see section II.A on beneficiaries). The project will therefore contribute to the twin goals and the Country Partnership Strategy objective of fostering economic growth and improved governance while reducing vulnerability. There is a clear link between the renewable natural resource base and how it boosts the prospects and resilience of the bottom 40 percent. This supports Ethiopia's ambition to achieve middle-income status by 2025 through green growth strategies.

31. **The OFLP contributes to the objectives of the World Bank's BioCF ISFL,** which provides financing to the OFLP to reduce GHG emissions from land use change through a statewide REDD+ and sustainable landscape management that blends land use planning, policies, and practices; harnesses multisector and private sector engagements; and leverages initiatives and financing, including results-based ER payments.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

32. The project will generate measured, reported, and verified Emission Reductions Credits (ERCs) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), agriculture and other land use sectors that meet the GHG accounting requirements of the BioCF ISFL in the Oromia Regional State and will distribute payments resulting from the purchase of those ERCs in accordance with an agreed BSP.

PDO Level Indicators

33. The achievement of the Project Development Objective (PDO) will be measured through the following indicators:

- Volume of CO_2e Emission reductions that have been measured and reported by the Program Entity, and verified by a Third Party (tCO_2e)

- MRV systems functional for all relevant land-use sectors (forest degradation, livestock, and land-use change) (Yes/No)
- Emission Reductions payments distributed in accordance with agreed Benefit Sharing Plan (Yes/No)

B. Program Design

34. **This project is part of the broader OFLP, which aims to promote integrated land use practices to minimize forest loss and GHG emissions, including from the livestock sector, in Oromia Regional State.** This large-scale landscape-level initiative is expected to foster economic, environmental, and social development while addressing the major challenges threatening the sustainability of Ethiopia's major forested landscapes in relation to agriculture, livestock, forest, and land use changes. Activities within the OFLP lead to ERs over the jurisdiction through (a) enabling investment (forest and landscape management, including soil management and livestock management), (b) enabling environment (policies and extension services), and (c) Program operating environment (MRV system, Program coordination, and environmental and social compliance system).

35. **This project will help generate ERCs for 4 million metric tons of CO_2e.** In addition to the funding from the sale of ERCs, this project will seek to leverage US$20 million of private sector finance and US$30 million of 'not-for-profit' finance to contribute to the OFLP's objectives. Those ERs will be periodically measured and reported by the GoE according to the ISFL methodological framework, independently verified and then issued as ISFL ERC. The purchase of those ERCs will generate revenues that will be channeled to the beneficiaries through a BSP.

36. **Monitoring and reporting systems for ERCs are operational.** The monitoring and reporting for the OFLP is aligned with the national MRV system, which was designed to support implementation of the NDC, and other country commitments, as part of the Paris Agreement. ERCs will be issued not only based on environmental integrity (according to the ISFL methodology and after the verification by a third party) but also based on environmental and social integrity in compliance with a national safeguards information system. To avoid the risk of double counting of ERCs from within the Oromia regional jurisdiction, all ERCs will be entered into the Carbon Assets Trading System (CATS)—a registry managed by the FCPF-BioCF/ISFL—and which will ensure traceability of each ERC generated by the program. The CATS will be used until a national registry becomes operational.

37. **The ER payments will cover a portion of the Program operating costs and coordination, which are taken off the top.** The proceeds from the ER payments will be allocated between the involved actors with a fixed percentage:[29]

(a) **Federal government.** Institutions at the federal level will continue their role in coordinating the implementation of activities at the national level supported by 5 percent of the ERC revenues. These activities include the facilitation of MRV, oversight of transparent and equitable distribution of benefits according to the BSP, and supervision of the environmental and social safeguard management system implementation.

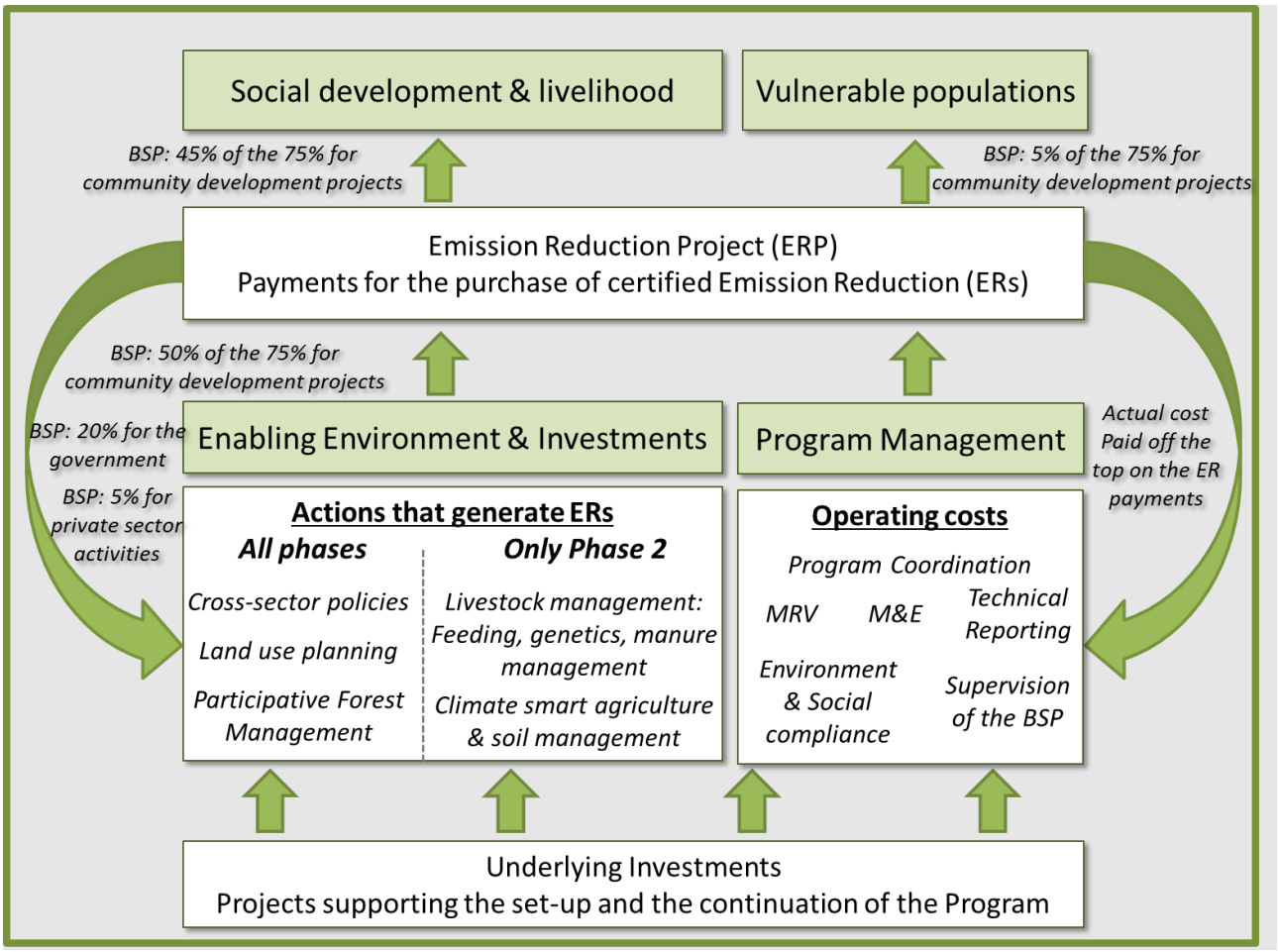
[29] The BSP provides a detailed description of the allocation between entities, fiduciary arrangements, and promoted activities.

(b) **Regional government.** Entities at the regional level will continue their role in coordinating activities within Oromia supported by 15 percent of the ERC revenues. These activities include the distribution of benefits at the community level, technical support to communities and beneficiaries, and overall project management.

(c) **Private sector.** Private sector partners and entities will benefit from investment grant funding, available on a matching fund investment basis, supported by 5 percent of the ERC revenues. The proposals for matching grant funding will include a detailed account of planned investment and activities, which will then be evaluated and approved by the Steering Committee. The activities funded by the matching grant include expansion of private investments in forest/livestock management and improvement of productivity and quality and related logistical and technological needs, which will promote generation of additional ERs.

(d) **Community development activities.** Communities at the local level continue their role in leading the implementation of development activities supported by 75 percent of the ERC revenues. The funds will be distributed according to the BSP, which also includes detailed description of fiduciary arrangements. The share of the ERC revenues allocated to community development is further divided between (i) activities contributing to ERs (50 percent), (ii) activities contributing to social development and livelihoods improvement, and (iii) activities benefiting vulnerable and underserved communities (5 percent). A recent gender diagnostic analysis provided a 'gender action plan', which is currently under implementation. As women in Oromia are more dependent on natural resources and are more likely to be directly vulnerable to the effects of climate change, attention will be given to women, particularly women-headed households with young children, while implementing activities.

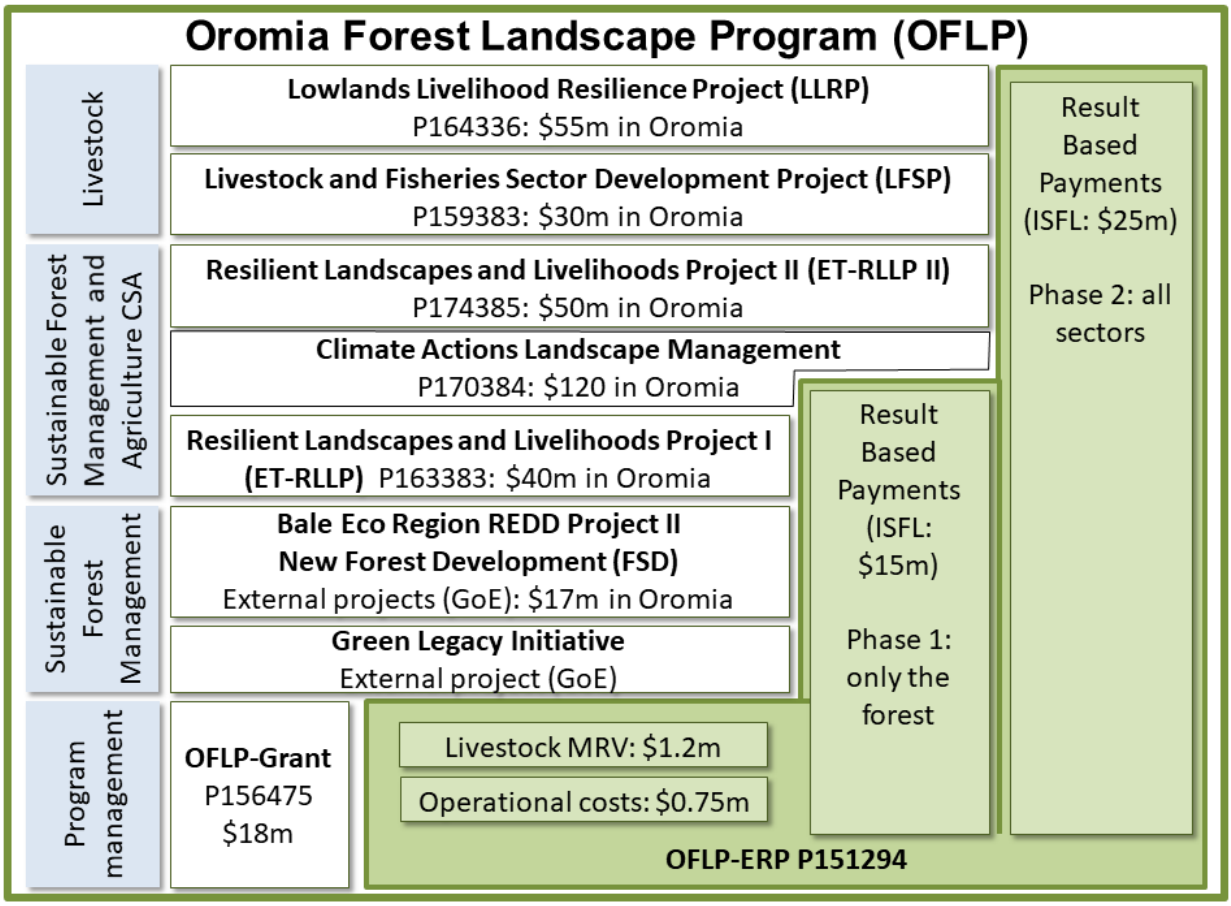
Figure 2. Overview of the Program



38. **The OFLP acts as the programmatic umbrella coordinating activities and partnering with multiple projects for a multisector, multi-partner integrated management of Oromia's landscapes.** The OFLP operates as a coordination platform working with all relevant agriculture-forested landscape-related initiatives in the region. The ORCU within OEPA is acting as a Program Coordination Unit between regional government line institutions, agriculture- and forest-based unions, private sector, civil societies, and research institutions and academia to support the Program objectives. A memorandum of understanding was signed with six regional entities (OEPA, OFWE, BoA,[30] Livestock and Fisheries Resource Development Agency, Bureau of Land [BoL],[31] and Bureau of Water and Energy Resource Development [BoWERD]) for implementation of the OFLP grant. This institutional setup will continue to evolve during the current OFLP-ERP implementation period.

[30] Previously named Bureau of Agriculture and Natural Resource (BoANR).
[31] Previously named Bureau of Rural Land Administration and Use (BoLAU).

Figure 3. Overview of the OFLP and Underlying Projects and Initiatives



39. ERs are generated by underlying investments and policies behind the project scope. Those activities can either support enabling investments or strengthen the enabling environment, as follows:

(a) **Enabling investments.** The investments could potentially relate to any of the following types of landscape management: sustainable forest management (including PFM with FMCs, efficient livestock management [specific feeding/breeding to reduce the emission per animal product unit]) or climate-smart agriculture to improve soil carbon in agricultural land. OEPA, OFWE, and other relevant sector bureaus will implement and coordinate activities on the ground through their woreda offices and kebele development agents (extension services). In addition, various projects (see figure 3) are considered as financing the underlying activities at the origin of ERs.

(b) **Enabling environment.** The enabling environment includes all activities aiming to improve the effectiveness and impact of the program. This includes actions to help scale up the reduction of emissions from the jurisdiction of Oromia as a result of reduction of deforestation and forest degradation and climate-smart livestock management through the strengthening of institutions, the definition of sound policies in the various sectors, and technical capacity building to enhance impacts. It also includes all the actions needed to be

able to generate ERCs: definition of the methodologies, establishment and update of the baselines, the processes for the measurement and reporting of the emissions, the verification and issuance of ERCs, marketing of ERs to identify buyers, and so on. Finally, the enabling environment includes the program management and operating costs for the BSP and the safeguards management system.

40. The underlying activities are implemented by different nongovernmental organizations (NGOs), sector bureaus, and private sectors and are needed to generate the ERs. However, they are not financed by this operation, which is exclusively limited to the purchase of ERCs.

C. Description of Project Components

Principles of Operation and Justification for the Phased Approach

41. **This operation focuses on purchasing ERCs and financing enabling activities for the carbon measurement (MRV) and the operating costs of the program.** The project consists of two types of transactions: (a) a transaction for the purchase of ERCs through an ERPA and (b) investments for operating the project and improving the MRV system through grants. ERCs are generated through an MRV system involving independent verification of monitoring reports. The quantity of ERCs created each year is determined after comparing the actual emissions from specific sectors against a previously determined baseline for those sectors. For that purpose, and following the national system for GHG inventory, each sector is divided into GHG emission reporting subcategories.

42. **The ISFL methodology states that the program will monitor the subcategories that are the main absolute contributors to the country GHG inventory and has set clear rules to select the 'eligible subcategories', that is, the subcategories to be monitored for generating ERs.** The emission measurement system would then have to meet specific quality requirements (on the availability of historic activity data and the emission factors for the baseline, the data collection methods, and geographic discrimination) for those subcategories to be eligible. The ISFL requirements establish that, if a subcategory does not meet all the quality requirements, it can be included for accounting in a later ERPA phase if all the quality requirements can be met through the application of improved methods and data.

43. **Based on these methodological requirements, the eligible subcategories in Oromia are determined.** The ISFL methodology reviews the contributions of three sectors (LULUCF, livestock, and the other sectors [rice cultivation, agriculture soil, and urea application]) and identified the six 'eligible subcategories' that would be monitored to track the variation of emissions within the jurisdiction: four subcategories relate to the variation of the surface occupied by forest (deforestation [forest land becoming either grassland or cropland] or reforestation [cropland or grassland being turned back into forest]), one category relates to forest degradation (variation of the carbon stock per hectare in the forestland remaining forestland), and one is associated with enteric fermentation from cattle (average emission per kilo of meat or volume of milk). According to the FDRE's forest definition, these eligible subcategories include 9 million ha of forests spread over about 35 percent of Oromia's rural woredas.

Table 1. List of Eligible Subcategories per Sector and per Phase

Sector	Subcategory	% of Emissions	Requirements			Conclusion
			Emissions Baseline	Methods and Data	Spatial Information	
LULUCF	Forestland remaining forestland	34	Met	Not met	Met	Phase 2
LULUCF	Forestland converted to grassland	5	Met	Met	Met	Phase 1 and 2
LULUCF	Forestland converted to cropland	5	Met	Met	Met	Phase 1 and 2
LULUCF	Grassland converted to forestland	> 1	Met	Met	Met	Phase 1 and 2
LULUCF	Cropland converted to forestland	> 1	Met	Met	Met	Phase 1 and 2
Livestock	Enteric fermentation - cattle	17	Met	Not met	n.a.	Phase 2

44. **As shown in table 1, two subcategories (forestland remaining forestland and enteric fermentation - cattle) do not fully meet the data requirements.** Therefore, in accordance with the ISFL procedure, it was agreed to measure—and therefore generate ERCs—in phases: during the first phase, only four eligible subcategories would be measured and compared to the baseline to generate ERCs, and during the second phase, all six eligible subcategories would be monitored. Meanwhile, the OFLP will ensure that the quality requirements are met to move to the second phase. An action plan is currently being implemented to collect the missing data (see annex 6). The requirements are expected to be met at least nine months before the second phase.

45. As a result, during the first phase, the OFLP will only generate ERCs based on the reduction of GHG emissions from deforestation (forest transformed into grassland and cropland) and reforestation (grassland and cropland transformed into forest) as measured by comparing the emissions for the four subcategories selected for the first phase and the baseline. Meanwhile, the ERCs from a reduction in emissions due to forest degradation (variation of the carbon stock within forestland) and emissions from enteric fermentation will be added in a second phase once the data quality requirements are met. The first phase is estimated to last three years (2022, 2023, and 2024) and the second phase from 2025 to 2029.

Description of the Components

46. The project has two components.

Component 1: Purchase of Emission Reduction and distribution following the Benefit Sharing Plan (ERPA: US$60 million, of which committed: US$15 million, initial financing gap: US$45 million)

47. This component includes the purchase of ERCs coming from the sound management of landscape and the distribution of net revenues according to the BSP.

Subcomponent 1.1: Payment for Emission Reduction Credits

48. This subcomponent represents payments for up to US$60 million (including options and future phases) for verified carbon performance paid within January 1, 2022, to December 31, 2029. These

payments will be available once the program achieves, verifies, and reports on results with regard to reduced emissions. This climate financing will be channeled through an ERPA to be signed between the FDRE and the World Bank.

49. While the expectation for the OFLP is to generate up to US$60 million ERCs, the World Bank initially commits to purchase up to US$15 million during a first phase based on the ERCs generated by the forest sector. This is because the emissions baselines for enteric fermentation and forest degradation have not yet been defined. For this reason, the initial legal agreement for the ER payments will only cover a portion of the full envelope and the remaining portion will appear as a funding gap.

50. The volume of ERs will be determined based on the comparison between the baseline and the volume given in the monitoring report that will specify the volume of emissions during a specific period. This monitoring report will use the ISFL-approved methodologies as described in the ERPD and data generated by the MRV system. After verification by a third party, ERCs will be issued and accounted in the national system when the registry under development becomes operational. Until this becomes practical, ERCs will be registered in the FCPF/BioCF/ISFL registry (CATS) and transferred to the buyer. The estimated disbursement schedule for the purchase of ERs is presented in table 2.

51. Given the uncertainty related to implementation of the underlying activities, ER purchase has been set with two modalities:

(a) Contract ERs (about US$40 million), which represents the value of ERC that the World Bank as a trustee and implementing agency of the ISFL, will commit to purchase if they are produced from the jurisdiction of Oromia in multiple phases. According to the ERPA, the Government may still request to sell them to another buyer for a higher price subject to the right of first refusal by the ISFL.

(b) Option ERs (about US$20 million), which represents ERCs that the World Bank may decide to purchase, at its own discretion, if there are ERCs generated beyond the contract ERs.

Table 2. Estimated Purchase Schedule

Monitoring Period		Value for the Maximum of Contract ERs (US$, millions)	Value for the Maximum of Option ERs (US$, millions)	Comments
Beginning	**End**			
ERPA Signing	12/31/2023	10		Phase 1: The monitoring includes only emissions from land use change. The options are purchased once all contract ERs are exhausted.
01/01/2024	12/31/2024	5	5	
01/01/2025	12/31/2025	5		Beginning of Phase 2: The monitoring includes ERs from livestock and forest degradation.
01/01/2026	12/31/2027	10		Regular monitoring periods are supposed to last 2 years.
01/01/2028	12/31/2029	10	15	The options are purchased once all contract ERs are exhausted.
Total		40	20	

Subcomponent 1.2: Distribution of ER payments as per a BSP

52. **BSP development.** The BSP was prepared through a highly participatory process. The BSP provides an operational solution for disbursing the performance-based ER payments equitably, effectively, and efficiently. It is guided by the principles of equity, efficiency, and transparency and defines the subcategories of beneficiaries, monitoring provisions, and processes for the distribution of benefits (eligibility criteria, allocation procedures, and flow of funds). It was designed by the FDRE during the early OFLP grant implementation period through a robust consultation process held statewide, including with potential community beneficiaries.

53. **BSP operational manual.** Implementation of the BSP for distributing the ERPA proceeds will be complemented by a BSP operational manual that provides detailed guidance on management and distribution of funds from top to bottom, including fiduciary management and controls, and environmental and social risk management arrangements. The operational manual will be a prerequisite for the Program Entity (seller of ERC) to fulfill before the World Bank disburses any payment. The manual is to be prepared by the project using the OFLP grant and will be reviewed and cleared by the World Bank.

54. **Third-party monitoring of the BSP.** Given the large geographical extent of the Oromia jurisdiction, the complexity of this operation, and the substantial number of OFLP-ERP measures contributing to the generation of ERs, provision for third-party monitoring (TPM) has been integrated into the project design. TPM will complement regular World Bank implementation support and will provide an additional tool for ensuring that any deficiencies or non-compliance issues in the implementation of environmental and social risk management systems are identified and addressed. The scope of TPM will also include systems-level monitoring of fiduciary mechanisms, including funds flows through the benefit sharing mechanism (BSM) and relevant financial and audit controls. TPM could provide a basis for identifying corrective actions, changes in management approach, and/or the need for additional financial or human resources.

55. **BSM-supported activities at the community level.** Ten types of activities that support the generation of ERs, social development, and livelihoods improvement have been identified for support at the community level by the BSM (see table 3). These were identified based on stakeholder consultations and taking account of the social and environmental risks they may generate.

Table 3. Proposed List of Potential Uses of the Benefit at the Community Level

Activities Used to Generate ERs	Activities that Support Social Development/Livelihood Improvement
• Seedling production for income • Coffee outside forest • Tree planting for income and own consumption • Fuel saving stoves • Fruit tree planting	• Maintenance of schools • Maintenance of clinics • Maintenance of roads • Beekeeping • Fattening (intensive and through cutting and carry system)

56. **Gender and underserved groups.** Women in the Oromia region are particularly vulnerable to forest loss, degradation, and climate change because they are more dependent on natural resources. Thus, all activities will be required according to the provisions of the BSM operational manual to provide specific attention to addressing gender gaps, as identified in the gender analysis and included in the gender action plan (annex 4), and gender mainstreaming guidelines for the OFLP. A gender indicator is

also included in the Results Framework to ensure that this is monitored and reported regularly. Furthermore, 5 percent of funds from the BSM will be dedicated to serve underserved and vulnerable groups including orphans, pregnant and lactating mothers, and women-headed households with young children (high-risk households with sick individuals, such as people living with HIV/AIDS).

Component 2: Comprehensive Measurement, reporting and verification (MRV) system and program management including Safeguards Management system (US$1.95 million, including AccelREDD Grant: US$1.2 million, ISFL Grant US$0.75 million)

57. This component is expected to provide financing for specific enabling environment activities such as (a) the finalization of the MRV system development and capacity building training on ER monitoring for the livestock sector and (b) the operating costs related to program management until the Government receives the first ERC payment. These activities can be financed from dedicated grants and, in the future, a contribution from the ERC payments.

Subcomponent 2.1: Program Management including E&S standards Implementation and communication

58. This subcomponent will support continued operational needs of the ORCU and equipment. The costs include the time of the ORCU staff (program coordinator, safeguards specialists, and MRV specialists), equipment related to the OFLP execution, operational costs for the coordination unit (safeguards supervision, field missions, MRV activity monitoring, and so on), and any other operating costs as deemed necessary for the successful implementation of the program, including institutional capacity strengthening of the project implementing structures.

59. Operating costs also include the expenses associated with standard administrative activities such as budgeting and planning, procurement and financial management (FM), annual audits, environmental risks management, and coordination meetings at regional or national levels.

60. This subcomponent will also finance expenses related to monitoring and evaluation (M&E), communication, and knowledge management including (a) meetings of the review/piloting committees; (b) implementation of the M&E framework; (c) communication and knowledge sharing; (d) planning and dissemination workshops; and (e) impact assessment, midterm review, and project completion evaluations.

61. This subcomponent can be financed using two modalities:

- Following the arrangements described in the BSP, a portion of the ERC payments will be dedicated to the program operating costs; however, the first carbon payment may not be expected before about six months after the end of the first verification, creating a gap between the end of the OFLP grant and the first carbon payment.
- To fill the budget gap to support the ORCU and program management, a grant will be provided until at least a year after the end of the first verification period. Once the payment for the first ERC purchase is received by the GoE, this subcomponent will continue to be financed from the ER payment until the end of the ERPA period following the arrangement described in the BSP.

Subcomponent 2.2: Improvement of the Comprehensive Measurement, Reporting and Verification system

62. This subcomponent will support the design, improvement, and operation of the MRV—particularly for measuring emissions from enteric fermentation, for which a dedicated grant will be provided**.** As mentioned earlier, to generate ERCs, baselines will be agreed for each eligible subcategory (meeting the ISFL quality requirements) as well as a system to collect and measure the actual emissions. Table 4 shows the situation for each subcategory. As methodological/baseline requirements have not been met for two eligible subcategories, action plans have been agreed to address these gaps.

Table 4. Situation of MRV for Each Eligible Subcategory

Eligible Subcategories	Baseline Established Based on Historic Data	Monitoring Current Emissions Measured Using Actual Data	Comments
Land use change[32]	Requirements met	System in place. Annual data collection to be financed by Subcomponent 2.1 for Phase 1.	Operational for Phase 1
Forest degradation	Requirements not met. An action plan is being implemented by the Government with the support of FAO and the US bilateral aid (Silva Carbon).	System to be designed and operationalized. Annual data collection will be financed by the carbon payments.	The baseline is expected to meet the requirement by mid-2023.
Enteric fermentation	Requirements not met. An action plan is being implemented by the Government with the support of the World Bank and US bilateral aid.	System to be designed and operationalized. Annual data collection to be financed by Subcomponent 2.1 (grant for Livestock MRV).	The baseline is expected to meet the requirement by mid-2023.

63. **Improvement of the MRV system for land use change (deforestation and reforestation).** The MRV system is already operational for Phase 1 and is expected to continue for Phase 2. However, following the current requirements of the ISFL methodology, the OFLP-ERP design may have to be updated during program implementation. In that case, updates to the baseline might be needed during the project lifetime. If this becomes the case, additional work would be financed with funds from the ERC payments or external funds.

64. **Improvement of the MRV system for forest degradation (forestland remaining forestland).** A workplan to improve data and methods for the 'forestland remaining forestland' subcategory has been agreed between the FAO, the Norwegian Embassy, and the US Silva Carbon Program. The technical approach will likely involve the use of advanced image analysis algorithms, including BFast and Continuous Degradation Detection (CODED), to track changes between classes within the forestland-remaining-forestland subcategory. The agreed workplan will improve data collection on 'forestland remaining forestland' subcategory by the end of 2023, but additional work may be needed. In that case, the additional work would be financed either by the ERC payments from the previous monitoring phases or external funds.

[32] This line gathers the following four eligible subcategories: 'forestland to grassland', 'forestland to cropland', 'cropland to forestland', and 'grassland to forestland'.

65. **Improvement of the MRV system for livestock management (enteric fermentation).** To improve the methods and data on enteric fermentation and build livestock sector carbon (MRV systems in general, this subcomponent will provide a grant to finance capacity development in GHG inventory, ER monitoring and reporting, and related skills both at the national and regional levels across the participating institutions. Sampling and laboratory analysis of feed and manure will also be funded to improve GHG emission factors. This grant will build on MRV development efforts implemented since 2018, aiming to develop GHG inventory tools for the livestock sector, identify data gaps, formulate data improvement plans, and develop data acquisition tools and protocols to address identified gaps.

66. Key activities to be financed under this grant are the following:

- **Acquisition of MRV equipment.** This could include special-purpose computers (desktops and laptops), servers, tablets, Global Positioning System (GPS), and other data-gathering instruments for fieldwork.
- **A series of capacity-building training programs on livestock GHG data gathering, analysis, and reporting,** using the expertise of specialized training institutions, livestock research organizations, and others, as appropriate.
- **Sampling and laboratory analysis of feed and manure samples** to assess parameters related to the quantification of GHG emission.
- **Supervision and monitoring of livestock ER** by national and regional MRV personnel trained for this purpose and data analysis and reporting—until 2028.

67. The implementing agency for managing the grant dedicated to finance improvement of the livestock MRV system will be the PIU for the LFSDP (P159382) under the MoA. The LFSDP using the US$1.2 million grant will steer the implementation and manage the capacity development activities at all levels to lay down the system. Within the LFSDP team, a dedicated focal point will be designated to follow the day-to-day implementation of the activities financed by this subcomponent and liaise with all participating stakeholders at all levels.

D. Project Beneficiaries

68. There are approximately 1.8 million people living inside or immediately adjacent to the existing forests within the Oromia jurisdiction. ER payments will directly benefit communities and the Government according to the rules set out in the BSP as described earlier. The exact number of direct beneficiaries of ER payments will be evaluated ex post, once the BSP is implemented. Moreover, these benefits will only materialize when emissions from the program area are reduced. The program will also deliver indirect benefits to a wide range of other stakeholders.

69. **Direct beneficiaries.** They are mostly the beneficiaries of support from the ERC payments, which will be channeled through the BSM. These are included in the Results Framework and will therefore be monitored and reported throughout program implementation. They comprise the following:

- 400,000 people living in communities and adjacent to forests who will benefit from non-carbon benefits. This includes women, men, and underserved and vulnerable groups.
- 2,000 communities that will receive (monetary and nonmonetary) benefits.

- 25,000 people, out of these 15,000 are women, involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities will receive monetary benefits
- 10,000 smallholder farmers in private sector schemes who will be supported to adopt improved agricultural practices.

70. Institutions at the federal, regional, and local levels will benefit from enhanced operational capacity. Federal institutions that will benefit directly include the EFD, Ministry of Finance (MoF), MoA, EPA and EWCA. Regional institutions will include the Oromia Regional State sector institutions such as the Vice-President's Office for Agriculture and Rural Development Cluster, Bureau of Finance (BoF), OEPA, OFWE, BoA, Oromia Cooperative Promotion and Development Bureau, BoWERD, and BoL. Local government sector institutions at the zonal and woreda levels will also be direct beneficiaries. Community-based organizations (CBOs) (such as FMCs and Kebeles) and private sector entities, for example, small wood processing enterprises and nursery operators, will also receive benefits through the BSM. NGOs that provide support to communities and government agencies also receive non-monetary benefits through enhanced operational capacity and system development. **Indirect beneficiaries.** These include downstream water users such as water utilities, irrigation schemes, and hydropower facilities that will benefit from improved protection of watershed services. Ethiopia's natural forests support high levels of biodiversity and endemism, and these attract a significant number of nature-based tourists who contribute to local economies through spending for accommodation and tourist guiding services. Tourism operators and local communities are therefore also anticipated to be indirect beneficiaries. It is also anticipated that there will be multiplier effects along value chains supplied by cooperatives and smallholder farmers supported through the BSM, for example, through traders, merchants, and value addition enterprises.

71. **Beneficiaries of the grant portions.** The grants will be dedicated to the improvement and the operationalization of the MRV system; safeguards management system established for the program; and for the program management, M&E, and communication. Thus, the grants are mostly expected to build the country's institutional capacities within the technical ministries and agencies such as the MoA, National REDD Secretariat, and EFD at the federal level and OEPA-ORCU, Oromia Bureau of Agriculture (BoA), BWERD, BoL, and OFWE at the regional level.

72. **Engagement with civil society.** Partners such as NGOs are also working with relevant bureaus/authority/agencies to (a) prepare, implement, and report on ER activities through joint annual OFLP workplans using the coordination platforms; (b) ensure consistent application of environmental and social compliance including application of Feedback and Grievance Redress Mechanism (FGRM); (c) maintain application of standard and agreed-upon MRV and BSP systems throughout; and (d) ensure synergies between existing sector initiatives that affect the OFLP objectives.

73. **Engagement with the private sector.** Similarly, private sector businesses implementing or investing in forested landscape-friendly initiatives will coordinate their work with the OFLP-ERP. Such private sector entities include those involved in commercial forest development activities, wood processing industries (small, medium, and large), entities investing in commercial, shade-grown coffee plantations and processing; commercial agricultural firms including cattle husbandry (for milk and beef); commercial honey harvesters and processors, commercial gum, spice other forest product collectors and processors, improved cook stove and biogas producers and distributers. All these are located in zones and woredas of Oromia and fall in different clusters as identified by OFLP. Coordination of activities at the

local level will be extended to these private entities too as these entities' commercial activities bring in sustainability, where feasible, contributing to more ER at the landscape level.

E. Results Chain

Figure 4. Theory of Change for the OFLP - Program Level

74. **The OFLP is Oromia's strategic programmatic umbrella and coordination platform for multisector, multi-partner interventions on all relevant agriculture-forested landscapes in Oromia.** In the long term, the program will contribute to a transformation of how forested landscapes that also integrate livestock are managed in Oromia to deliver multiple benefits such as poverty reduction and resilient livelihoods, climate change mitigation, biodiversity conservation, and water provisioning. The

OFLP will foster equitable and sustainable low carbon development through a series of (a) on-the-ground activities that address deforestation, reduce land use-based emissions, and enhance forest carbon stocks (enabling investments) and (b) statewide and local enhancements to institutions, policies, information, and safeguards management to scale up investment (enabling environment), including coordinating and leveraging multiple interventions in the forest and agriculture sectors (including livestock) across the regional state.[33]

F. Rationale for Bank Involvement and Role of Partners

75. **Ethiopia's climate change-related commitments include strengthening the capacity for resilience against adverse effects of climate change and halting the fast disappearance of forest resources globally and locally.** As such, REDD+ has been at the heart of Ethiopia's engagement against climate change. The World Bank has also identified REDD+ as a strategic landscape management policy that can have wide implications on a range of socioeconomic issues, including, but not limited to, food and water security, fighting of land degradation, improvement of land productivity, job creation, and poverty alleviation—leading to the World Bank becoming one of the major actors of REDD+, notably through global initiatives (FCPF and BioCF). Thus, through the years, the World Bank has been offering considerable support for Ethiopia to engage in REDD+ and institutionalizing REDD+ within the Government's administrative structures. A small beginning that started with the support of REDD Readiness Preparation Proposal (R-PP) formulation, continued growing to the REDD Readiness Financing Program at the national level that also paved the way for designing a jurisdictional result-based financing (RBF) program, which is the OFLP.

76. The development of the OFLP-ERP aims to contribute significantly to the realization of the CRGE objectives and complements the NDC fulfilment, which are the Government's climate change policy initiatives. Also, the OFLP as a convening program will enable the FDRE to strategically mobilize, coordinate, and scale up funding from diverse sources. Because of the potential of REDD+ for poverty alleviation in rural underserved areas, the World Bank has been supporting the Government's engagement in REDD+ policies, including the OFLP and the OFLP-ERP.

Existing Projects Supporting the Program

77. The success of the OFLP and the achievement of the FDRE's broader forest, land use, and climate ambitions depend on the ability to leverage financial resources from existing and future relevant initiatives, among others, the PSNP, RLLP, AGP, CALM, LFSDP, LLRP, and from private sector investment activities such as the recently completed/closed International Finance Corporation (IFC) and Nespresso Sustainable Coffee Productivity Improvement Initiative and the Climate Smart Dairy and Coffee Improvement through Private Sector Co-financing Project, which was started with seed money from the Swiss Government. In addition, the CRGE facility's bilateral support resources that finance important projects such as the REDD Investment Project (RIP) funded by Norway and other fast-track projects, farmers' own investments, projects and initiatives undertaken with the Government's own budget (Green

[33] Initiatives relevant for REDD+ are projects, programs, and activities in general promoted by the FDRE, donors, NGOs, or private sector that directly or indirectly contribute to reducing emissions from deforestation or increasing forest carbon stocks in the Oromia Regional State. Examples of these initiatives include the SLMP of the MoA; the RIP financed by Norway; REDD+ Legacy projects; Green Legacy initiative; efforts of the Japan International Cooperation Agency (JICA) and OFWE to promote PFM and new forest-based business models (including forest coffee); and the forest coffee operations supported by Nespresso, BioCF, and IFC.

Legacy Initiative, Integrated Watershed Management, and so on) are contributors. REDD+-relevant initiatives such as the BMERRP, having several phases since the beginning, have been doing relevant on-ground investment activities complementary to the OFLP's objectives. The BMERRP has managed to sell verified ERs in two rounds in the voluntary market (2013–2015 and 2016–2019) and distributed ER proceeds to beneficiaries. Starting January 2022, the BMERRP-generated ERs will be accounted for and reported through OFLP's ERPA.

G. Lessons Learned and Reflected in Project Design

78. **Lessons learned from the OFLP grant.** The project reflects the experience gained regarding the improved institutional and management capacity during implementation of up-front mobilization grant by coordinating the spatial and thematic REDD+ related initiatives and institutions operating in the land use sector across all administrative levels (the regional, cluster/zonal, and woreda level) for joint work, planning, and progress review. Regular coordination of activities and harmonization among all the different sectors on land use is critical for implementation of climate-friendly land use programs at a jurisdictional scale, such as the OFLP. This kind of approach has contributed to improving the institutional and management capacity by working across land use types and with multiple stakeholders. Such an approach is crucial for creating models for national implementation and help overcome the shortcomings of small project-based approach. Small projects are associated with high transaction costs and reduced cost effectiveness and have limited impact on the enabling environment for reducing emissions from the landscape.

79. **Lessons learned from other forest projects.** The OFLP-ERP is designed based on the experience of natural resource management and forestry projects in Ethiopia and other countries. It also reflects lessons learned from completed projects in Ethiopia such as the World Bank-financed Humbo ANR Project,[34] World Vision-financed Soddo ANR Project,[35] BMERRP implemented by Farm Africa and SOS Sahel with financing from multiple sources including Norway, the National REDD+ Readiness Project, and JICA's Community Management for Forest Protection Program. Particularly, lessons from the BMERRP in designing the OFLP's BSP (identification of potential beneficiaries, allocation of benefits vertically and horizontally, setting of criteria for benefit allocation, and so on) have been significant.

80. **Lessons learned from other ER programs.** The OFLP's technical design is solidly based on basic principles and lessons from other programs, including the following:

(a) Successful payment of performance-based financing cannot materialize in a vacuum. It is critical to provide funds up front to mobilize work on the local and statewide enabling environment at the spatial scale of the performance-based financing.

(b) It is critical to coordinate and leverage existing initiatives to help reduce deforestation and degradation trends summarized in the opening sections of the OFLP Grant Project Appraisal Document (PAD). This coordination and leveraging carries a cost and require physical presence on the ground at the woreda level where programming and land use planning are done, and activities are implemented for most of the significant existing initiatives.

[34] The first CDM project in Africa that successfully paid smallholders for increased forest carbon from reforestation of degraded lands through ANR.
[35] The first voluntary carbon standards (VCS)/Carbon fix standard project in Ethiopia that successfully paid smallholders for increased carbon from natural regeneration and reforestation of degraded lands.

(c) A long-term programmatic approach is needed to build the basis and financing for scaling up by crowding-in financing sources, stakeholders, and sectors.

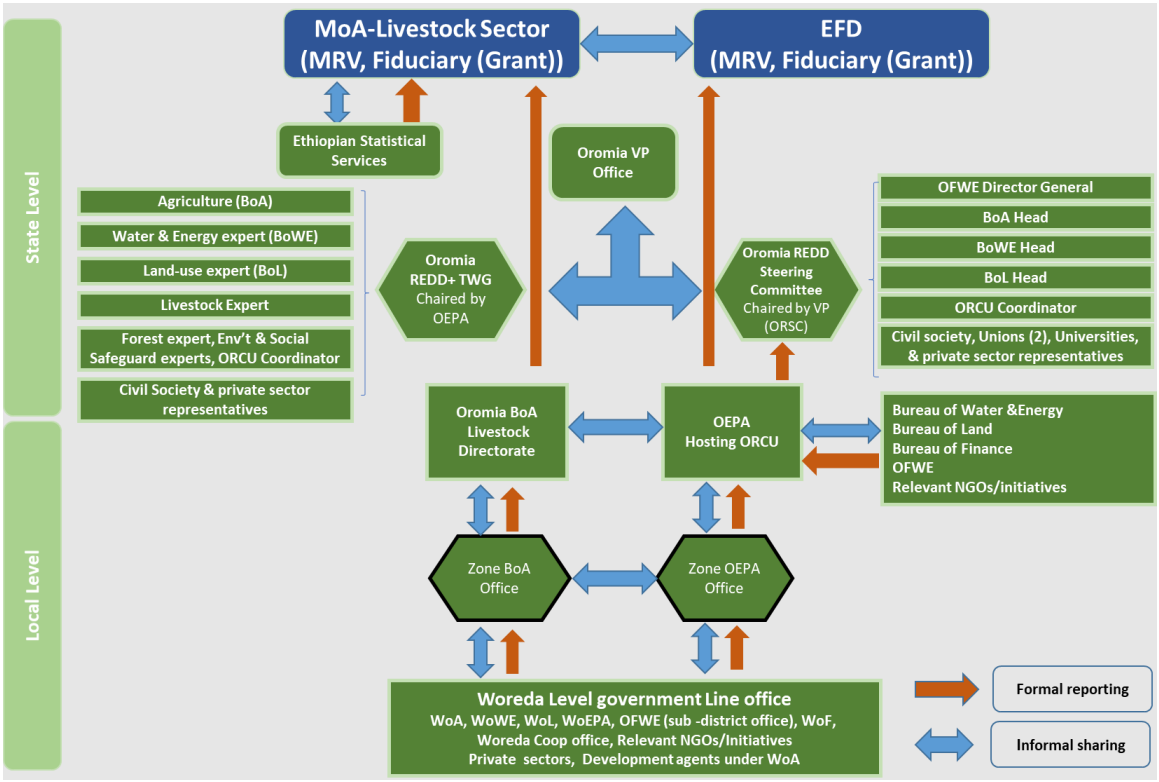
(d) Pilot forest investments are needed to show visible early progress, help motivate stakeholders at all levels, and give weight to activities designed to enhance the local and statewide enabling environment, such as strengthening extension and land use planning/enforcement at woreda levels.

(e) Government ownership and multisector implementation arrangements.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

Figure 5. Institutional Arrangements for Reporting - Program Level



81. The OFLP-ERP implementation arrangements include relevant institutions at the national, state, and sub-state levels with specific accountabilities and decision-making roles based on existing mandates.

82. The MoF at the federal level will sign the ERPA and take the overall fiduciary responsibility. The MoF is not involved in the reporting but only in the transfer of funds for the BSP. The MoF will receive funds from the ERC purchase based on verified ER amount achieved by the program at the end of each ERPA phase and distribute ER benefits according to the BSP.

83. The EFD will oversee the overall technical and policy dimensions of the program at the federal level and OEPA will have the oversight responsibility for the OFLP-ERP in subsequent phases in the Oromia

Regional State jurisdiction. OEPA was set up by Proclamation 199/2016 on July 20, 2016 (as amended recently by regional regulation no. 242/2021) and is officially mandated to oversee the forest sector in Oromia.

84. The ORCU is the implementing unit for the OFLP, tasked with the program's day-to-day technical and administrative management including ER monitoring, reporting, and safeguards activity supervision to ensure the program's compliance with the Environmental and Social Framework (ESF) instruments. While the ORCU reports administratively to OEPA, it seeks strategic and tactical guidance from the Oromia Regional State Vice-President, given the multisector nature of the OFLP and land use challenges in the regional state.

85. The program implementation is split into various segments:

(a) **The underlying activities** are coordinated by the ORCU but are executed by various projects and programs. The regional state's multisector REDD+ Steering Committee and Technical Working Group, established during the grant implementation period, will continue providing strategic guidance and technical inputs, respectively, to guide the OFLP-ERP implementation. OEPA and sector bureaus, including the BoA, BoWERD, BoL, and OFWE, will support the ER program implementation and coordinating activities on the ground through their decentralized staff, particularly those activities that are potentially contributing to produce more ERs and are financed from own sources or from ER proceeds.

(b) **The carbon accounting and performance verification.** The EFD will lead the overall MRV undertakings of the ER program through its dedicated MRV Unit, including collection of regional-level primary ER performance data and analyzing and reporting of the same to the World Bank/ISFL. The EFD is Ethiopia's coordinating entity for MRV for the forest sector through its MRV Unit and the National REDD Secretariat (NRS). The MRV Unit produces maps, collects and reports GHG inventory data, and undertakes MRV tasks working in collaboration with federal and regional institutions. The OFLP-ERP will follow the same ER monitoring approach and use the same MRV institutional arrangement established at the national level. Table 5 illustrates the details of the MRV institutional arrangement for OFLP-ERP.

(c) **The activities financed by the ER payments according to the BSP.** The ER proceeds received as RBP will be shared according to the provisions agreed in the BSP. ER fund disbursement will follow the MoF's 'Channel 1 fund transfer system'. The MoF receives proceeds from the sale of ERCs and places these funds in a dedicated account and retains a 3 percent performance buffer for risk management and deducts the operational cost. The ORCU/OEPA officially communicates the details on the share allocated to all categories of eligible beneficiaries from the net payment according to the agreed criteria in the BSP to the regional BoF. Accordingly, the BoF transmits the disbursement request to the MoF. Then, the MoF transfers the federal Government's share to the EFD's account and the remaining net benefit and the operational costs to Oromia BoF. The BoF, based on proportions allocated for each entity and the decision of the OFLP Steering Committee, will disburse ER proceeds downward to OEPA, woreda finance offices, FMCs, and private sector accounts, as appropriate. Additional details are provided in the BSP and annex 1.

(d) **The activities financed by the grants.** As part of the OFLP-ERP, two grants will be provided.

- The first grant (US$750,000) will support program management including (i) coordination among the various projects supporting the underlying activities; (ii) costs associated with the reporting on carbon and non-carbon benefits (coordination meeting, compilation of the data, and so on); (iii) dialog with the federal and regional institutions involved in the program; and (iv) support for three MRV specialists, two MRV assistants, and four OFLP safeguard specialists (two for social and two for environmental safeguards). It will finance staff costs and activities to ensure that the environmental and social system is in place and is effective to identify and mitigate the impacts of the underlying activities. This grant will be managed by the ORCU.
- The second grant (US$1.2 million) will support the design and operationalization of the MRV system setup for emissions related to livestock management. This will include activities to be implemented under the leadership of the existing PIU for the LFSDP, which is already hosted by the MoA and its subsidiary within the OBoA, and activities to be implemented in support of related MRV activities at the ORCU and EFD levels. The PIU for the LFSDP will be responsible for managing the grant (at least for the next two years until the MoA sets the right directorate responsible for livestock-related MRV activities). The PIU established for the LFSDP will have the overall fiduciary responsibility for this grant and will transfer the required budget to the partner entities according to agreed workplans.

B. Results Monitoring and Evaluation Arrangements

Carbon Benefits

86. For the OFLP, the accounting area of the program is the entire Oromia Regional State, comprising about 300 rural woredas. ER from the eligible subcategories (see table 4) within the entire Oromia Regional State will be measured annually. According to the FDRE's forest definition, these eligible subcategories cover 9 million ha of forests, spread over about 35 percent of Oromia's rural woredas.

87. Measurement and reporting from the GoE to the BioCF will take place as specified in the ERPA legal agreement. Third-party verification, contracted by the World Bank, is a requirement before the issuance of ERCs and, subsequently, payments. Third-party verification will take place every two years, following the submission of the biannual monitoring reports by the GoE. Furthermore, to ensure robust implementation of environmental and social risk management in compliance with the World Bank's ESF, the World Bank may request TPM to ensure that the safeguards and fiduciary control and management systems are being applied effectively at the systems level. The specific schedule for this process will be adjusted as needed, should adjustments be required to the duration of the first and second phases. Payments from the BioCF to the GoE are expected to be made biannually upon verification of ERs.

88. **Monitoring of the land use change (Phases 1 and 2).** The OFLP will monitor and account for positive and negative changes in forest cover and associated GHG ER within the regional state boundaries of Oromia. Monitoring of forest cover and forest cover changes follow methodologies that were established at the national level and that are in line with international best practices. The data generated by the OFLP will feed into the National Forest Monitoring System (NFMS). The outputs of the NFMS will in turn feed into the broader UNFCCC reporting.

89. Using geospatial data from the Ethiopian Geospatial Information Institute (EGSII), the EFD's MRV Unit will produce maps and identify the surface in each land use category. Based on this, the EFD's MRV Unit will determine the emissions due to the conversion from or into forests and compare it with the baseline to assess the ERs and produce a monitoring report. The verification will be managed by a third-party firm hired by the ISFL. The verification report will determine how many ERCs are generated and issued in the registry.

Table 5. Responsibilities of the MRV System

Function	National	Oromia
High-level oversight and coordination	• The federal REDD+ Steering Committee through NRS oversees the process and ensures a link to decision-making. • The federal MRV task force monitors the process and reports to the federal REDD+ Steering Committee. • The MRV Unit under the Forest Resources Assessment and Monitoring Directorate of EFD manages workflows and day-to-day coordination.	• OEPA/ORCU, supported by the OFLP Steering Committee and Technical Working Group, monitors implementation of MRV within the region.
Measurement	• The EGSII collects LULC data. • The EFD MRV Unit produces the map. • The MRV Unit in coordination with NRS regularly collects, analyzes, and aggregates primary data.	• The ORCU MRV team collects primary and secondary data on program interventions (that is, geographical information on A/R activities, program-level biomass survey data, and so on).
Reporting	• The EFD MRV Unit in coordination with NRS calculates GHG emissions at the regional level. • The EFD MRV Unit delivers official GHG emissions estimates.	• The ORCU MRV Unit will compile results of the EFD MRV Unit for the region and submit a report in the form of a Program Document (for example, following the BioCF-ISFL methodology and Verified Carbon Standard).
Verification	• It is conducted by national or international entities. • The MRV Unit in coordination with NRS provides support in verification.	• The ORCU's MRV Unit will be the focal point and lead the verification process.
Support and technical advice	• The national MRV expert group and NRS provide support and technical advice. • Universities and research institutes will be engaged by the MRV Unit on a continuous basis for research and capacity building. The MRV Unit opens a call for research proposals, in close coordination with the ORCU's MRV Unit, on any research needs and liaises with research institutions in Oromia.	• The Oromia REDD+ Technical Working Group provides technical advice.
International reporting	• The EFD's MRV Unit reports to the World Bank's BioCF-ISFL and UNFCCC.	n.a.

90. **Monitoring of forest degradation (Phase 2 only).** A workplan to improve data and methods for the 'forestland remaining forestland' subcategory has been agreed between the FAO, the Norwegian

Embassy, and the US Silva Carbon Program. The agreed workplan will improve data collection on the 'forestland remaining forestland' subcategory by the end of 2023. The technical approach will likely involve the use of advanced image analysis algorithms, including BFast and CODED, to track changes between classes within the forestland-remaining-forestland subcategory. A detailed time-bound plan to improve data and methods for the 'forestland remaining forestland' subcategory is still under construction in discussion with several institutions such as the FAO, Silva Carbon, FDRE National MRV team, regional MRV team, and United State Forest Service. The category is expected to meet the ISFL quality requirements by March 2024 to include this category in Phase 2.

91. **Monitoring of enteric fermentation (Phase 2 only).** The ISFL has proposed to use a GHG emission intensity accounting methodology in the OFLP to calculate ERs from livestock. Emission intensity represents the amount of emissions by livestock per unit of product. Emission intensity is calculated as CO_2 equivalent emissions per unit of milk and meat yield.

92. As the monitoring requirements are not yet met, the emissions from this subcategory cannot be measured and compared to a baseline at the time of project approval. An improvement plan was defined (see annex 6) to improve the data collection and design a baseline that meets the ISFL standards. This plan is currently under implementation. Once it is completed, the system to collect (annually) all the variables needed to measure the emissions from enteric fermentation will be in place. It is expected to involve the Ethiopian Statistical Service (ESS) to access annual headcount data on livestock and the milk and meat products for the year.

93. The MoA, which holds the mandate for livestock sector policy and management, will lead on aspects relating to measuring and reporting of livestock emissions. The MoA will coordinate with the livestock unit of the OBoA, OEPA/ORCU, ESS, EFD MRV Unit (a forthcoming new national umbrella body for MRV of the CRGE sectors), and agriculture/livestock research centers existing at the national and regional levels, as appropriate. Within the MoA, the LFSDP PIU will coordinate support activities on the MRV system for enteric fermentation.

94. The umbrella National MRV body, when formally established, will be the main institution responsible for compiling sectoral ERs for the NDC reporting and more generally for international reporting (to the UNFCCC and ISFL). The design of the MRV for the enteric fermentation under this project will be adjusted as this national body is established.

95. Some of the monitoring activities described above rely on the collection of field data. Due to security and conflict issues, especially in western Oromia, it is possible that field level monitoring may not be possible in some woredas which might affect the monitoring approach.

Non-Carbon Benefits

96. Following the requirements from the ISFL Monitoring, Evaluation, and Learning Framework,[36] latest version of which was approved by the contributors at the 2020 ISFL annual meeting, each project should report on the non-carbon benefits and other co-benefits. Four mandatory non-carbon benefits

[36] https://www.biocarbonfund-isfl.org/sites/isfl/files/2021-08/ISFL%20MEL%20Framework%20July%202021.pdf.

indicators were designed and integrated in the Results Framework, with the following correspondence (table 6):

Table 6. Mainstreaming of the Non-Carbon Benefits

Mandatory Indicators from the ISFL Monitoring, Evaluation, and Learning Framework	Indicators Included in the Project Results Framework
T1.2 GHG emission reductions in ISFL program areas (FAP)	"Volume of CO_2e Emissions Reductions that have been measured and reported by the Program Entity, verified by a Third Party (Number (tCO_2e))"
T2.O2.1 Number of communities or other organizations that have received benefits (assets and/or services) from emission reduction payments	"Communities that have received monetary and nonmonetary benefits from the emission reductions payments (Number)"
T2.O2.2 Number of people involved in income generation activities due to ISFL support (% women)	"Number of people involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities and receiving benefits from the ER Program (% women) (Number (People))"
T2.O3.1 Volume of for-profit private sector finance leveraged to contribute to ISFL objectives	"Volume of for-profit private sector finance leveraged to contribute to OFLP objectives (Amount (USD))"
T2.03.2 Volume of not-for-profit finance (public or private) leveraged to contribute to ISFL objectives	"Volume of not-for-profit finance (public or private) leveraged to contribute to OFLP objectives. (Amount (USD))"
T2.O3.3 Number of people in private sector schemes adopting sustainable practices	"Number of smallholder farmers in private sector schemes adopting improved agricultural practices (% women) (Number (People))"

97. The responsibility for collecting and compiling the non-carbon benefits will lie with the ORCU. The M&E manual will detail how and at what frequency the information should be generated and collected by the ORCU.

C. Sustainability

98. Sustainability is a core element of the project, especially as the project focuses on improving governance and fostering sound management of natural resources in the long term. Based on the lessons learned from various initiatives in the previous decade on landscape management, the project was designed using the following approaches to increase sustainability:

- **Alignment with national procedures.** The project's approaches and processes are adapted to follow national procedures. It pays attention to respecting the competences of each decentralized authority, particularly local governments. All the instruments created by the project are compliant with the current legal framework. For example, the BSP builds on the national system for decentralization and will be implemented using the steering role of the woreda and kebele. The local instruments for sustainable management, environment and social compliance, and extended services are operationalizing the existing contexts on landscape management and land use planning. For this reason, the project is implemented in collaboration with the existing institutional systems run by several ministries, authorities, agencies and directorates, and so on, instead of building its own implementation arrangements.

- **Investing in governance and inclusive dialogue.** The project will ensure that the activities financed by the BSP are designed and selected after going through an inclusive consultation process. This will also ensure that investments, which have been decided collectively by the beneficiaries themselves for the benefit of their kebele/community, will be maintained sustainably.
- **Building a revolving system to bring carbon finance for development.** By design of the BSM, 50 percent of activities financed by the BSP will be dedicated for sound landscape management. It is therefore anticipated that carbon payments during the lifetime of the project will generate further ERs after the end of the operation. In fact, on average, the lifetime of a nature-based operation is closer to 20 or 25 years than 10, because of the time needed for reforms and activities to produce results. Because the ISFL is fully designed to become compliant with the upcoming carbon finance arrangements under the Paris Agreement and the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), it is expected than the OFLP may continue to generate ERCs after the end of the operation, using other carbon issuance systems. For this, additional capacity-building activities will be implemented to continue strengthening the national MRV structure and its alignment with the NDC reporting.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

Technical

99. **The OFLP is a long-term program that intends to address landscape management issues using an integrated approach.** For this purpose, it coordinates several projects and uses various instruments, including investment and carbon finance. This operation, the OFLP-ERP, is a results-based carbon finance portion of the program. The OFLP-ERP follows a hybrid programmatic approach that combines results-based carbon finance (Component 1) and regular investments (Component 2) for operating costs and capacity-building activities. Component 2 will support the implementation of Phase 1 and the design and operationalization of the MRV for the livestock sector, which is required for Phase 2. Overall, the purpose of the grants is to help the Government put in place systems (safeguards, carbon accounting, benefits sharing, coordination platforms, and investment models) that will allow successful implementation of the carbon segment (Component 1).

100. **The ER program design builds on a series of technical studies carried out during the REDD+ Readiness preparation phase.** These studies include a legal and institutional study, an in-depth analysis of the drivers of GHG emissions in the landscape (mostly deforestation and forest degradation), a Strategic Environment and Social Assessment (SESA) and associated environmental and social instruments, legal analysis on forest tenure, and the broad consultation process.

101. **Underlying activities at the origin of ERCs.** The OFLP-ERP will generate ERCs as a result of several underlying investments and policies launched and coordinated by the Government with the support of partners. The activities for each category of GHG emission source (variation of forestland, forest degradation, and enteric fermentation from livestock) are described in annex 3, and the list of projects

and initiatives that support them are shown in figure 3. Major interventions to address the drivers of GHG emissions and land use change include the following: (i) Sustainable forest management (PFM, A/R, and area enclosure); (ii) More efficient livestock production (improving rangeland management, quality and availability of feed resources, extension services, breeding, and so on); (iii) Energy efficient technology (cookstoves and biogas); (iv) More efficient agriculture (including coffee plantation management and so on); and (v) Sound land use planning and tenure security and family planning service and increasing job opportunities and ensuring cross-sectoral coordination for improved outcomes and effective coordination among investments. Overall, the ERs will be generated as a result of climate-smart investments, laws, and policies that benefit both the economic development and mitigation of climate change. However, all those activities are outside the scope of this operation.

102. **The carbon finance component complies with the requirements of the ISFL methodological framework and UNFCCC REDD+ rules.** All elements related to the carbon component (financial plan, carbon accounting requirements, legal requirements regarding the transfer of titles, benefit sharing arrangements, and ER program transactions) are described in the ERPD, which was reviewed by a third-party auditor. The assessment process was conducted between March 2020 and July 2021, concluding that the ER program fully met the requirements for the emissions from the variation of the forest surface but needed additional data to finalize the baseline for the emissions from enteric fermentation and forest degradation (to be implemented in a second phase). The GoE has established a technical roadmap and has secured the funding to fill the data gap and provide, before the end of 2023, a revised baseline that includes the historic emissions from enteric fermentation and forest degradation, as well as arrangements to continue measuring emissions from those activities (see annex 3). With these baselines and additional arrangements, the OFLP-ERP will be able to measure emissions from all six subcategories that contribute the most to emissions for the landscape.

Economic and Financial Analysis

103. This project is jurisdictional in that there are several underlying investment projects that have contributed to reduced GHG emissions – some in Oromia only and some in multiple regions. Each of those projects have undertaken their own Economic and Financial Analyses (EFAs) with positive returns on investment, but those analyses cannot easily be aligned. Instead, the methodology used in OFLP-Grant Project Appraisal Document (PAD, World Bank, 2017a) is adapted to combine three projects: The current OFLP-ERP (P151294), OFLP-Grant (P156475), and RLLP 1 (P163383+P172462). Other underlying projects could be added to this analysis when the necessary data are obtained. Their annual cost and benefit flows are aligned over time with 2017 as the base year. The cost benefit analysis is conducted over a 20-year period.

104. Amounts paid to beneficiaries through the Benefit Sharing Plan (BSP) is both compensation for improved practices under past projects (OFLP-Grant and RLLP 1) and to encourage improved practices in the future (OFLP-ERP). This analysis includes only contract Emission Reductions (ERs) in Phase 1. The quantified benefits are: Increased adoption of Participatory Forest Management (PFM) including some livelihood activities; Newly established woodlots and capacity to adopt afforestation and reforestation (AR) technologies; Improved productivity through higher yields, reduced losses, and more sustainable agricultural and land management practices; and Reduced Greenhouse Gas (GHG) emissions and enhanced carbon stocks in landscapes. Some benefits are quantified by the direct transfer of funds through the BSP to social development, livelihoods, and vulnerable populations for example maintenance of schools, clinics, and roads.

105. Both the economic and financial analyses show robust returns on investment from the three projects combined. With a 12% discount rate in 2017 amounts, the estimated financial NPV is US$37 million, a BCR of 2.2, and an IRR of 33%. With a 7% discount rate in 2017 amounts, the estimated economic NPV without social value of carbon is US$72 million, a BCR of 2.8, and an IRR of 33%. Depending on the assumed price, the social value of carbon can add between US$54 million and US$1.3 billion. The economic NPV of the ER payment is US$3.6 million in 2017 amounts, or US$7.9 million in 2022 amounts constituting 20% of the Government's US$40 million ERPA commitment.

106. Other than social value of carbon, most of the estimated benefits are from improved landscape management. Project returns are therefore sensitive to the assumed incremental increase in household income and number of beneficiary households. However, results are unlikely to fall below the already conservative estimates - providing efforts in improved landscape management continue.

107. If the ER payments increase either due to higher unit prices or from also selling option ERs, the number of beneficiary households and hectares in OFLP-ERP can increase. A 4% increase in project returns can be achieved with a 34% increase in unit prices or ER payment. By including both contract and option ERs in both Phase 1 and 2, the NPV increases by 24% to US$89 million in 2017 amounts. In 2022 amounts, the NPV of the ER payment constitutes 67% of the Government's US$40 million ERPA commitment. However, more data about other underlying projects are needed to fully value Phase 2 focus on livestock and forest degradation.

108. These are conservative estimates because several benefits have not been quantified including: Improved forest cover, water flow/quality, habitat for wildlife, biodiversity, ecosystem services, and enhanced habitat connectivity from more sustainable forest and land management practices; Enhanced biodiversity in agricultural landscapes; Higher social capital and empowered communities, including for women; and less conflict and waste due to improved institutional norms, clarified rules and procedures. Furthermore, indirect beneficiaries and multiplier effects have been excluded from the estimate because they are difficult to monitor and to attribute to the project. The estimates are also conservative because the analysis does not account for opportunity costs where beneficiary household income may decline over time in the absence of project interventions. This also does not include improvements in community resilience in the face of occasional disasters such as droughts and floods.

B. Fiduciary

(i) Financial Management

109. In line with the World Bank Directive: Financial Management Manual for World Bank Investment Project Financing (IPF) (last revised in February 2017) and the Small Recipient-Executed Trust Funds Grants Guidance Note, an FM assessment was conducted for the OFLP-ERP IPF part (Component 2) to evaluate the adequacy of the FM arrangements for implementation of the proposed operation. The assessment has considered current FM experience with the ongoing OFLP (P156475) implemented by the EFD and other World Bank-financed projects implemented by the MoA.

110. The scope of the assessment includes the degree to which (a) the budgeted expenditures are realistic, prepared with due regard to relevant policies, and executed in an orderly and predictable

manner; (b) reasonable records are maintained and financial reports are produced and disseminated for decision-making, management, and reporting; (c) adequate funds are available to finance the project; (d) there are reasonable controls over project funds; and (e) independent and competent audit arrangements are in place.

For the ER Payments

111. The World Bank FM policies for IPF do not apply to emission crediting transactions as they do not involve direct World Bank financing of the underlying activities or investments but only payment for ERs generated under such operations. However, the emission crediting transactions also require the program entity to distribute such ER payments (that is, the ERPA revenue) in accordance with a BSP. Hence, the FM assessment for this activity (Component 1) reviewed the specific arrangements included in the BSP to ensure proper control, recording, and reporting of ER payment distributions to beneficiaries. Basic staffing structure, budgeting, accounting recording system and financial reporting, fund flow, audit arrangements, and internal control systems were discussed with the GoE. The World Bank provided advice on the FM of the funds transferred as part of the purchase of ERCs based on best practices and lessons learned from other World Bank-financed projects with ER payments.

112. **Overall fiduciary responsibility for the ERPA.** The EFD has the overall oversight role for implementation of the ER program for the forestry sector. The MoF at the federal level is the responsible body to sign the ERPA and receive payments based on the purchase of ERC issued after verification of the program's ER. ER verifications are expected every two years, the first one being at the end of the first phase. The payments are then channeled under the overall responsibility of the MoF according to the BSP.

113. **Funds flow.** ER payments will be made by the World Bank to the MoF. The ER payments will be made according to the terms and processes set forth in the ERPA. The eligible expenditure for the World Bank is the ER payment.

114. As described in the BSP, the Dedicated Payment System is designed as follows:

- The MoF will transfer the funds it receives from the World Bank to different beneficiaries.
- The MoF transfers its share at the federal level to the EFD.
- The Oromia BoF will request the MoF to transfer funds to it according to the lists of eligible beneficiaries received from OEPA/ORCU. This is a list approved by the OFLP Steering Committee. The MoF transfers the benefit and operational costs to the BoF accordingly and the BoF transfers these resources to the respective beneficiaries (OEPA, FMCs, shares of kebeles without FMCs, to the Woreda Office of Finance [WoF], private forest developers, and eligible sector bureaus implementing winning proposals).

115. **Reporting, internal control, and audit.** Monitoring of disbursement will be done by the MoF, BoF, EFD, WoF, OEPA, and OFLP Steering Committee. A financial report should be submitted to the World Bank by the MoF semiannually within 45 days of the end of the semester. The MoF Channel One Programs Coordinating Directorate is responsible for consolidation of the financial reports and submission to the World Bank. OEPA/ORCU is responsible for collecting the financial reports of FMCs and private forest developers and submitting them to the BoF. The IFRs should include a statement of sources and uses of funds, including reconciling items (as needed) and cash balances, with expenditures classified by project

component/activities of the BSP. The financial report should be audited and submitted to the World Bank annually within six months of the end of the fiscal year by MoF. The responsibility of monitoring ER proceed utilization (progress, effectiveness, and efficiency) lies with the EFD, OFLP Steering Committee, and OEPA. Detailed arrangements on this are included in the BSP. In addition to the controls included in the BSP, the GoE's internal control processes will apply.

116. **Budgeting and accounting.** At the federal level (for the MoF and EFD), an integrated financial management information system (IFMIS) will be used to record transactions relating to the funds distributed/transferred. At the regional and woreda levels, IBEX will be used to record transactions and generate financial reports. The accounting system to be used by FMCs and private forest developers should be discussed and agreed with the the BoF and WoF. These entities might use manual accounting due to capacity limitations. Hence, the Oromia BoF and WoF should ensure that reporting is done accurately. Training should be provided to enhance their capacity, as applicable. All implementing entities should assign FM experts to manage the overall FM activities.

117. **Disbursement condition.** Currently, there is no legal framework/regulation issued by the Government for title transfer rights for the ERP and development and operationalizing of the BSP. This is required by the World Bank for making the ER payments. Hence, issuance of such legal framework/regulation is a disbursement condition. Once the legal framework is issued and the disbursement condition is lifted, the ER payments will be made according to the terms and processes set forth in the ERPA.

For the Grants

118. The MoA will be responsible for the overall FM activities financed by the two grants (US$1.95 million). The EFD is currently implementing the OFLP (P156475) with OEPA-ORCU taking the responsibility for regional implementation. The MoA currently implements multiple World Bank-financed projects, such as the LFSDP (P159382), managed by its own PIU. The EFD will implement the US$0.75 million grant financed by the ISFL while MoA through the PIU for the LFSDP will manage the US$1.2 million grant from AccelREDD. The experience of these entities will help the project manage the grant funds to be received and ensure proper accountability.

119. **Funds flow.** Under the two grants, funds from the World Bank will be disbursed to the EFD, which in turn will disburse to the MoA, and OEPA following the Government's Channel 2 fund flow mechanism. A US dollar Designated Account should be opened at the EFD, and separate local currency accounts should be opened at the MoA and OEPA. For supervision and other running costs required by the regional and federal level implementers from the USD 1.2 million grant, MoA will provide advances to these entities and ensures necessary documents are collected and maintained at MoA to settle the advances.

120. **Budgeting and accounting.** The project budget should be prepared according to the Government's budget process and should be consolidated and submitted for the World Bank's 'no objection' by the EFD. The respective entities' budget will be proclaimed under the MoA and EFD. The eligible expenditure is the actual expenditure of goods, services, and operating cost as described in the financing/grant agreement. Accounting centers are the EFD, OEPA, and MoA. Although advances could be provided to other federal and regional implementers by MoA, these will not be accounting centers. The advances will be for supervision and other running/administrative costs required by the regional and federal level implementers from the USD 1.2 million grant. MoA should ensure necessary documents are

collected and maintained at MoA to settle the advances. All implementing entities should have the necessary finance personnel to handle the accounting and financial reporting tasks. The federal implementing entities will use the IFMIS for accounting purposes whereas at the regional level, Peachtree/IBEX software will be used. Charts of accounts should be developed for recording the grant transactions.

121. **Reporting, internal control, and audit.** The EFD is responsible for submitting interim financial reports (IFRs) semiannually within 45 days of the end of each reporting semester to the World Bank. For this purpose, the EFD consolidates its IFR with the IFR it receives from the OEPA/ORCU and MoA. At the EFD, there were significant delays in submitting IFRs to the World Bank previously. However, the recent IFRs have been submitted on time. The MoA has a good track record in submitting IFRs to the World Bank in other World Bank-financed operations. The Government's internal control systems should be used in processing project transactions. In addition, project-specific requirements will be included in the project's Operations Manual. Audited financial statements should be submitted to the World Bank within six months of the initial expected closing date of the grant supporting the operating costs (June 30, 2025). This two and a half year period is expected to be the finalization of activities of the grant to the EFD (and hence its closing) and where a significant part of the MoA-related activities will be completed. A second external audit should be conducted during Phase 2 within six months of the closing date of the MoA grant (closing date: June 30, 2028). As the MoA, EFD, and OEPA/ORCU have ample experience in current World Bank-financed operations, IFR preparation, fund flows, and audit requirements can be managed as required.

Risk Management for Both the Grants and the ER Payments

122. Based on the assessment conducted, the major risks include the following:

(a) **For the ERPA.** The absence of legal framework/regulation for clarifying the ER ownership and title transfer rights may lead to delays in implementing the BSP, delays in setting up the MRV lab facilities leading to delays in disbursement, delays in distributing the share of the ERP to kebeles and private sector forest developers as the former is based on community action plans and the latter is dependent on action plans, and failure to prepare technical and financial reports on time.

(b) **For grants.** Given the nature of the activities and expenditures, the risk is limited given the experience of the implementing entities at the federal and regional levels. Necessary finance staff should be assigned to ensure proper accounting and financial reporting.

123. Mitigating measures include ensuring the issuance of the legal framework/regulation, closely following the MRV activities to ensure timely completion, and close support and follow-up of kebeles and private sector forest developers to ensure that all necessary documentations are availed on time. Based on the risks identified and mitigating measures proposed, the FM residual risk rating is Substantial.

124. The assessment concluded that the FM arrangements are adequate to provide reasonable assurance to the use of grant resources according to the World Bank's IPF Policy and Directive. For the ERPA, the Dedicated Payment System put in place for implementation of the BSP is found to be adequate, having the necessary controls and oversight.

(ii) Procurement

125. In Ethiopia, for federal budgetary bodies, public procurement is regulated by the Public Procurement and Property Administration Proclamation No. 649/2009. The Proclamation establishes the Federal Public Property and Administration Agency as a body responsible for regulation and monitoring of federal bodies' public procurement activities. The nine regional states and two city administrations have their own procurement proclamations and directives, which are basically drafted using the federal one as a prototype. The regional implementing agency is OEPA, which has a procurement system similar to the Federal Public Procurement Agency, while most of the documents are in the regional language, *Oromiffa*.

126. The grants and ER payments will follow separate procurement and verification procedures and arrangements.

For the Carbon Payment (following the BSP)

127. For ERs (carbon credits) coming from the forest and livestock sectors, the OFLP payments will be made on the basis of ERs achieved as outlined in the ERPD and ERPA to be signed between the GoE and the BioCF-ISFL (a World Bank Trustee for ISFL donors/contributors). The program covers the whole of the Oromia Regional State and hence is called a jurisdictional program. The financing provided under the proposed ERPA is to be disbursed in the form of payments against ERs that are periodically reported by the GoE and independently verified by a third party. Hence, this component will not follow the procurement procedures.

For the Grants

128. The grants will cover institutional expenses such as (a) the time of the program coordinator, safeguards specialists, and MRV specialists; (b) consultants, supervision, laboratory analysis, and equipment for the livestock MRV system; and (c) equipment and operational costs for the office to function.

129. The procurement activities shall be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers, dated July 2016 and last updated in November 2020; Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (dated October 15, 2006, and revised as of July 1, 2016); and the provisions stipulated in the Legal Agreement. Hence, OEPA/ORCU will prepare a Project Procurement Strategy for Development (PPSD) and a Procurement Plan for the activities financed by these grants.

130. Procurement responsibility will be ensured by the ORCU. A procurement assessment was carried out by the World Bank during the preparation of the project. The details of this assessment are found in annex 1.

131. The assessment found out that the implementing agency under the proposed project has a decade of experience in implementing World Bank-financed projects. Over time, reasonable improvements have been made in procurement planning, preparation of bidding documents and Request for Proposals, evaluation of bids/proposals, award and publication of contracts, contract management, procurement oversight and controls, and procurement record keeping, among other things. The

implementing agency has also made a considerable effort to build the capacity of staff. Its latest assessments on procurement for the current project implemented by the ORCU have been Satisfactory or Moderately Satisfactory.

132. However, weaknesses remain, particularly in the area of not meeting some World Bank key procedures including proper use of the Systematic Tracking of Exchanges in Procurement (STEP) tool. Procurement laws, including federal, regional, and World Bank procurement procedures, are known to the implementing agency and referred to in the execution of procurement activities.

133. The key issues and risks identified during the assessment of OEPA include the following: weak procurement oversight body; lack of qualified and proficient procurement staff; lack of experience in World Bank-financed project procurement, especially using the IPF Regulations; lack of experience in procurement planning; lack of procurement guidance and manual; lack of satisfactory data management and maintenance of procurement audit trail; and no training plan for capacity building.

134. Other key issues that prevailed in the first phase of the OFLP implementation, and could be risks for implementation of procurement under the proposed project, include the following:

(a) Lack of adequate capacity for procurement record keeping; lack of skill development schemes for procurement personnel; and low pay scale for procurement personnel, which is too low to attract qualified procurement personnel

(b) Lack of systematic procurement planning and follow-up

(c) Lack of experience in contract administration and management

(d) The inadequacy of the procurement environment for implementation of the project, that is, staff do not have the required qualification and experience in contract management nor any knowledge and skill about the World Bank's Procurement Regulations.

135. Following the procurement capacity assessment of the implementing agency carried out by the World Bank, the procurement risk factor is 'Substantial'.

136. Given the above key issues and risks, the procurement management risk for OEPA/ORCU is rated 'Substantial' and for the LFSDP PIU latest procurement assessment, the procurement performance and procurement risk in the LFSDP have been rated 'Moderately Satisfactory' and 'Substantial', respectively in successive missions.

137. The mitigating measures include, among other things, conducting annual independent annual procurement reviews or World Bank PPR; providing periodic procurement training to relevant staff; updating the procurement manual as part of the Project Implementation Manual to reflect changes in the program setup in the procurement arrangements; and ensuring that Procurement Plans are prepared, coordinated, consolidated, and updated as needed by OEPA/ORCU and LFSDP to ensure harmony of procurement activities.

138. One major mitigation measure is the capacity-building effort to familiarize the procurement and related staff with the Procurement Regulations for IPF Borrowers, which needs to be considered and included in the design of the project's new settings, World Bank's post and prior reviews and PPSD to reflect the use of the National Procedures, provided that such procedures shall be subject to the following

requirements as provided in section 5 paragraph 5.4 of the Procurement Regulations for IPF Borrowers (November 2020) and to ensure a procurement specialist in the LFSDP PIU, which was agreed.

139. The World Bank will provide oversight of procurement activities through prior reviews, which will be based on the risk level assessed by the World Bank which was sought to be substantial and shall be updated annually. Based on the risk rating, the borrower shall seek the World Bank's prior review for contracts of values detailed in annex 1.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social Risk Management (ESRM)

140. The OFLP-ERP will pay for ER results generated across Oromia and is expected to provide financial incentives to support sustainable forest management, conservation, restoration, and investment, which, in turn, enhance environmental, social, and economic benefits in Oromia Regional State. The OFLP-ERP's environmental and social risk rating is Substantial considering the jurisdictional approach that covers the regionwide scale, the contextual risks including fragile environment with complex social relationships in the intervention areas, inadequate enforcement in natural resources management including forests, and inadequate cross-sectoral coordination. The ongoing fragility and conflicting situation in the North, Northeast, and Southwest parts of Ethiopia along with the instability in some parts of Oromia Regional State, mainly in the western Wollega cluster zone, could also adversely affect the OFLP-ERP, including implementation of ESRM activities, as well as proposed activities to be financed by the BSP, related to distribution of ER payments, such as maintenance of schools, clinics, and roads and beekeeping and cattle fattening activities, among others.

141. Both the underlying activities at the origin of the ER and activities financed by the BSP are outside the responsibility of the project. Following recommendations of the Operations Environmental and Social Review Committee,[37] the responsibilities of the World Bank, as Trustee of the ISFL, should be on the performance of the agreed safeguards systems for both the underlying activities and activities financed by the BSP and not on supervising the safeguards aspects of all individual activities. During the ER program implementation, the World Bank, strictly in its role as Trustee, will review the reports from the program entity to determine whether the Environmental and Social Management Framework (ESMF) and any capacity-building activities specified in the Environmental and Social Commitment Plan (ESCP) and other environmental and social instruments have been implemented with satisfaction. Similarly, the World Bank will determine whether the program entity has distributed the benefits in accordance with the agreed BSP and whether it has implemented any safeguards measures/capacity-building needs, as described in

[37] Managing Environmental and Social Risks for the FCPF Emission Reductions Programs, (April 22, 2019). this decision, initially for FCPF operations, also applies to the ISFL.

the BSP. However, the World Bank is not responsible for ensuring the compliance of these individual activities with the ESMF nor is it responsible for ensuring implementation of the BSP on the ground.

Risks Related to the Underlying Activities and Implementation of the BSP

142. **The potential environmental risks and impacts** include community and occupational health and safety issues; soil disturbances; disturbance of environmentally sensitive areas' activities; contamination/pollution of soil and water resources due to the use of agrochemicals, including pesticides, in nursery sites in agroforestry practices; and environmental (dust, GHG emissions, and/or noise) problems related to small-scale infrastructure (for example, soil-and-water conservation measures, livelihoods supporting activities, and so on) construction and maintenance activities and ER payment activities. There are also potential risks of reversals and displacements/leakages (due to inadequate enforcement/coordination) under the ER program, which may affect biodiversity and forest-dependent livelihoods, which will, in turn, cause pollution and harm to local communities. Overall, the environmental risks and impacts of the program are mostly site specific, temporary, and reversible as the activities (implemented among other things, under the OFLP grant, RIP, the two legacy REDD+ projects, and the Green Legacy Initiative) that will generate ERs are being safeguarded through the OFLP environmental and social instruments and will be sustained and monitored during the ERPA phase.

143. **Potential social risks and impacts.** The social risk classification for this project is rated Substantial. The potential negative social risks and impacts are not likely to be significant; however, the statewide implementation of the ER program involving multiple sectors may involve activities that may have the potential to harm people. Due to implementation of the project in a changing and fragile environment with complex social relationships, the program will likely cause substantial social risks, concerns, and impacts. The potential social risks and impacts due to the program activities under Component 1 (Purchase of Emission Reduction and distribution following the BSP) related to small-scale construction/maintenance for social development activities including schools, clinics/health centers, roads, and income-generating activities such as beekeeping and fattening (intensive and through cutting and carry system) may result in impacts related to land acquisition, involuntary resettlement, and loss of livelihoods including inadequate consultation and inclusive participation and restriction of access to natural resources. In addition, the social risk anticipated during implementation of the OFLP and other initiatives' activities (including PFM, A/R under the existing OFLP, existing REDD+ projects [BMERRP and REJFMA-SW Ethiopia II], RIP, Green Legacy Initiative, and Green Corridors Practice) will contribute to generating ERs. During the grant OFLP activities' implementation, there could be risks related to limited institutional capacity for law enforcement; weak coordination among sectoral institutes for joint planning on forest issues and sustainable management of land and natural resources; access restrictions; social conflicts (competition over natural resources and access to land/tenurial rights); and exclusion during PFM cooperatives formation, benefit sharing, and operation and accessing forest resources. Further, restriction of access to natural resources due to the OFLP intervention might impose conflict among traditional seasonal migrant forest resource users, including pastoralists.

144. As the OFLP-ERP will be implemented throughout the Oromia Regional State jurisdiction, its intervention may also affect those historically underserved people including the forest-dependent and/or semi/pastoralist communities and other vulnerable and marginalized groups in the region. Thus, there could be a likelihood of social exclusion of targeting beneficiaries from participating in project opportunities (for example, ER payment) and elite capture of the benefits excluding some stakeholders, particularly those from historically underserved communities and other vulnerable and marginalized

groups including women, unemployed youth, the elderly, disabled persons, resource poor individuals, ethnic minorities, forest-dependent communities, and so on.

145. As the OFLP-ERP is being operated in a changing and fragile environment with complex social relationships, the program might exacerbate or create likely social concerns related to intertribal conflicts and other forms of disputes; land tenure security issues; forced eviction; elite captures; labor conditions and issues related to labor influx including violence against children, sexual exploitation and abuse and sexual harassment (SEA/SH), and other forms of gender-based violence (GBV); and other issues related to community health and safety such as transmission of communicable disease (for example, sexually transmitted diseases, HIV/AIDS, COVID-19, and so on).

146. In addition, inadequate awareness and capacity to manage relevant social issues such as forced and child labor, GRM, lack of gender-sensitive instruments, and so on and weak capacity and expertise within the government structures to deal with both social and environmental risks to properly implement ESRM instruments, including weak multisectoral coordination, may exacerbate the potential social risks.

147. Furthermore, implementation of REDD+ legacy projects and REDD+ Investment Program (financed by Norway) activities might have associated social risks including over expectation of financial and nonfinancial support from REDD+ which may create or exacerbate conflict between the local officials and communities, exclusion of forest-dependent communities, weak legal enforcement on sustainable forest management endeavors, and unavailability of locally accessible GRM.

148. **SEA/SH risk rating.** The GBV/SEA/SH risk classification for this program is rated Substantial. According to the Demographic Health Survey (2016) report, in addition to the high prevalence of GBV risks in the context of Ethiopia induced by traditional harmful practices such as early marriage, polygamy, rape, abusive behavior and acts against women and female-headed households, and so on, a significant percentage (38 percent) of GBV (particularly between husband and wife or intimate partner violence) was recorded in the Oromia region where the proposed program will be implemented throughout its jurisdiction. Besides, due to the nature of the program (most of the ER program activities will be conducted in fields, where beneficiaries and workers are sometimes isolated from others), there might be potential risks and impacts of GBV/SEA/SH in the program implementing areas as follows: (a) increasing risk of violence when women are confronted with traveling long distances to access work opportunities (for example, construction works related to maintenance of social facilities according to the BSP); (b) due to interactions between the contractor/subcontractor workers (who will be engaged in maintenances of schools, clinics, and roads), community workers, and other project workers with nearby communities especially the vulnerable groups including forest-dependent communities; (c) though moderate in scale, issues related to labor influx and labor/working conditions where there will be weak capacity to enforce the national labor laws and absence of workers' code of conduct; and (d) the prevalence of insecurity of women's rights to land and property and economic dependence on male relatives, notably common in the rural and peri-urban areas, that makes women more vulnerable to socioeconomic forms of violence such as property grabbing.

Mitigation of the Risks

149. To screen, assess, and manage environmental and social risks and impacts in the program, the existing OFLP (P156475), through the OFLP grant financing, has already adopted a jurisdictional approach to ESRM including regional capacity building related to ESRM; adopted a safeguards information system

for the collection, compilation, and release of information on the compliance of OFLP implementation activities with the agreed ESRM instruments (such as SESA including social development plan [SDP], Resettlement Policy Framework [RPF], Process framework [PF], and ESMF); established and strengthened a GRM, a community participation and citizen engagement plan, and gender mainstreaming activities, reaching out to vulnerable groups; and established measures to monitor, report, and document the ESRM performance in the accounting areas, among others. The ESRM, which is being established during the grant period (2017–2022), will be used and strengthened during the ERPA period through resources to be allocated from the proceeds of the ERPA.

150. Thus, the existing ESMF, SESA, including SDP, PF, and RPF, have been updated to capture the requirements of the ESF. Labor Management Procedures (LMP) and Stakeholder Engagement Plan (SEP) are newly developed and disclosed before negotiations. In addition, an ESCP, which sets out the material measures and actions required by the project to be implemented in accordance with the relevant Environmental and Social Standards of the ESF and applicable national legislations, has been developed and disclosed.

151. To further manage environmental and social risks, the ORCU shall ensure that the BSP is implemented through a participatory approach and apply beneficiary feedback mechanisms as defined in the SEP. Moreover, mitigation measures for risks related to elite capture of the benefit were captured in the BSP through a consultative process. As the BSP was prepared for the first phase of the forest sector ER benefit, a comprehensive BSP will be prepared for the second phase of the ERP to include the livestock sectors during project implementation. The existing project-level GRM will be strengthened to effectively function in addressing any grievances and concerns related to the project's overall activities throughout the project intervention areas in the region.

152. Further, to effectively prevent and mitigate these risks and impacts related to the GBV/SH/SEA, the borrower has conducted GBV/SEA/SH Risk Assessment and developed a GBV Action Plan as part of the ESMF updates. The project will ensure that the GBV/SEA/SH mitigation measures are included in the standard bidding documents and other procurement conditions. A workers' code of conduct will be developed and extended to the project and contractors'/consultants' workers. Also, the Project Coordinating Unit will develop a separate guideline for GBV GRM and promote the effective referral of any incidents of GBV to available service providers mapped in the region. In case the client requests retroactive carbon accounting before the ERPA signing, the required environmental and social due diligence is reflected in the ESCP and ESMF.

153. Further, these instruments will be assessed and updated, if needed, before the project moves into its second phase to describe both (a) the system in place for the compliance of the underlying activities in the livestock and forest management sectors and (b) the system in place for the compliance of the updated BSP, which will include the actors of the livestock sector.

V. GRIEVANCE REDRESS SERVICES

154. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit

their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

155. **The overall risk at appraisal stage is 'Substantial',** primarily based on risks emerging from the political and governance environment; institutional and fiduciary capacity for implementation, especially at the woreda level; macroeconomic and fiscal environment; and social and environmental risks.

156. **Political and governance risks are High as Ethiopia goes through a historic transition that has brought new uncertainties, conflicts, and insecurities.** While the political space has opened up since the 2018 transition of power, political groups continue to voice historic grievances related to questions of ethnic identity and governance and control over climate sensitive resources such as water and pasture. Analyses show a complex conflict system interweaving old and new grievances, local and national politics, neglect, frustration of the younger generation, climate change and land degradation, rural-urban migration, and other factors, with a history of conflicts being framed in ethnic terms.[38] Entrenched positions among some activists and political leaders remain. In some places, this has led to violence, conflict along ethnic lines, and forced displacement of people. Several ethnic groups in the SNNP region have petitioned to form their own regional states, resulting in the formation of two new regional states: Sidama and Southwestern Ethiopia in 2020 and 2021.

157. **Macroeconomic risks are Substantial owing to high external and domestic debt, severe forex shortages, rising inflation, and declining trends in tax-to-GDP ratio and the spending share of basic services.** These, coupled with the conflict, led to massive resource diversion toward security and humanitarian efforts and pose increased resource shortage/constraint at the subnational level. The increasing cost of funding decentralized structures puts further pressure on limited resources as the number of woredas continues to grow. For example, between 2012/13 and 2017/18, woredas increased by 65 percent in Oromia, 35 percent in the SNNP region, 57.5 percent in Amhara, and 47.4 percent in Somali regional states.[39] The inevitable economic impact of the COVID-19 pandemic and conflicts will also be reflected in the GoE's fiscal space and consequently in allocations to environment and forest management sectors, putting pressure on the provision of forest management advisory, with potentially detrimental long-term effects on landscape degradation.

[38] World Bank. 2020. *Inclusive Development in Local Areas of Violence and IDP Hosting Areas: Risks and Opportunities.* Washington, D.C. See also Armed Conflict Location and Event Data Project. 2021. 2021 Conflict Dimensions in Ethiopia. https://epo.acleddata.com/acleddatanew/wp-content/uploads/sites/2/2021/04/Conflict_Dimension_Ethiopia_2021_March_EPO.docx.pdf; Stockholm International Peace Research Institute. 2020; Ethiopia's Transition: Implications for the Horn of Africa and Red Sea Region, SIPRI Insights on Peace and Security No. 2020/5. Stockholm: SIPRI. https://www.sipri.org/publications/2020/sipri-insights-peace-and-security/ethiopias-transition-implications-horn-africa-and-red-sea-region.

[39] World Bank. 2019. "Review of Local Level Planning and Budgeting Process in Ethiopia (unpublished)."

158. **The level of risk associated with the technical design of project and the institutional capacity is Substantial.** This program is highly innovative and would be the first of its kind at this scale. There are multiple risks related to implementation of this program: (a) the underlying investments, which operate in a challenging environment, will require strong collaborations between the forest services and the communities to perform as required and have an impact on the emissions; (b) the multisectoral approach may face challenges, especially when the program moves to its second phase, with the inclusion of livestock management; (c) the various technical services—including in livestock and agriculture sectors—may lack the ability to measure the various data needed for the creation of ERs; and (d) the revised data needed for the second phase may not be available on time or with a quality that would not be sufficient for the approval of the revised ERPD—this would result in the second phase being delayed or canceled.

159. **Mitigation.** As forest, livestock, and agriculture are now part of the same ministry, coordination is expected to be easier. In addition, to mitigate risks (c) and (d), the operation includes grants to cover the fixed costs and implement any activity needed to meet the requirements on time.

160. **The integrated residual fiduciary risk under this program is Substantial.** Beyond the two grants implemented by the MoA, BoA, EFD, and OEPA/ORCU, the BSP is a new system that will rely more intensively on the country system and public expenditure system. The risks relating to the ER payments and distribution to beneficiaries include absence of legal framework/regulation delaying the implementation of the BSP, delays in MRV activities leading to delays in disbursement, delays in distribution of share of the ERP to kebeles and private sector forest developers as the former is based on community action plans and the latter is dependent on action plan, and failure to prepare technical and financial reports on time.

161. **Mitigation.** The mitigation measures include ensuring the issuance of the legal framework/regulation, closely following the MRV activities to ensure timely completion, and closely supporting and following up with kebeles and private sector forest developers to ensure that all necessary documentations are availed on time. In addition, the ORCU has already started working on an operating manual for the BSP—to ensure that the detailed procedures are well understood by all stakeholders. For the grants, the necessary FM experts should be assigned to ensure proper accounting and financial reporting.

162. **The environment and social risk is Substantial.** The OFLP-ERP's environmental and social risk rating is Substantial considering the jurisdictional approach that covers the regionwide scale, the contextual risks including fragile environment with complex social relationships in the intervention areas, inadequate enforcement in natural resources management including forests, and inadequate cross-sectoral coordination. The ongoing fragility and conflicting situation in the North, Northeast, and Southwest parts of Ethiopia along with the instability in some parts of the Oromia region, mainly in the western Wollega cluster zone, could also adversely affect the OFLP-ERP including implementation of the ESRM activities and proposed activities to be financed by the BSP related to distribution of ER payments. The project may also face specific social risks and concerns related to historically underserved people (including forest-dependent communities), intertribal conflicts and other forms of disputes, land tenure security issues, forced eviction, elite captures, and SEA/SH and other forms of GBV, among other things.

163. **Mitigation.** The OFLP-ERP has updated the existing environmental and social instruments (SESA including SDP, ESMF, RPF, PF, and BSP) and has prepared new environmental and social instruments (SEP, LMP, ESCP, and Security Management Plan [SMP]), which comprise proportionate mitigation measures to

address the potential environmental and social risks and impacts. In addition, the institutional and implementation arrangement for environmental and social risk management established during the OFLP grant financing will be maintained and strengthened during the ERPA period, which relies on the existing Government institutions both at the federal and the Oromia Regional State levels with discrete accountabilities and decision-making roles based on existing mandates.

164. **Stakeholder risks are Substantial.** The stakeholders have been heavily involved in the preparation process and have contributed to the BSP. This raised the expectations for the program. Yet, the project is results based and may only deliver a portion of the expectations, depending on the actual emissions, which would not be known before the end of the monitoring phase. Moreover, the carbon payments can only happen after the end of the monitoring phase—presumably mid-2023—but delays should be expected until the funds arrive at the woreda and kebele levels. With over 6,000 kebeles in Oromia (but only 65 percent with significant forest) and annual payments lower than US$ 5 million per year on average not only for forests but also in Phase 2 for the livestock, the amounts per kebele or per stakeholder might be limited or lower than expected. Finally, the cost of the program itself, including the cost of processing the BSP (internal control, financial reporting, technical supervision, and so on), is unknown. If those expenditures are not well managed, the actual amount going to the communities may be reduced, increasing the frustration.

165. **Mitigation.** The project includes a portion of the grant, which can be used or topped up to cover the extra costs, in case the amounts for the communities are too reduced. In addition, the BSP will be revised before Phase 2 to become a ‘comprehensive benefit sharing plan’, and this will be the opportunity to assess the operating costs and adjust the BSP as needed. Finally, it is expected that there might be more ERs generated than what this operation can purchase. In that case, it would generate extra revenues for the communities.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Ethiopia
Oromia Forested Landscape Program – Emission Reduction Project

Project Development Objectives(s)

The project will generate measured, reported and verified Emissions Reductions (ER) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), agriculture and other land use sectors that meet the GHG accounting requirements of the BioCF ISFL in the Oromia State and will distribute ER payments in accordance with an agreed benefit sharing plan.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Incentivize the generation of measured, reported and verified Emissions Reductions Credits (ERCs)			
Volume of CO2e Emissions Reductions that have been measured and reported by the Program Entity and verified by a Third Party (Metric ton)		0.00	4,000,000.00
ERCs come from reduced deforestation as well as agriculture and other land use			
MRV systems set up and functional for all relevant land-use sectors (forest degradation, livestock, and land-use change) (Yes/No)		No	Yes
Payments are distributed in accordance with an agreed benefit sharing plan			
Emission Reductions payments distributed in accordance with an agreed Benefit Sharing Plan (Yes/No)		No	Yes

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Distribution of ERC payments following the Benefit Sharing Plan			
People in forest & adjacent community with monetary/non-monetary benefit from forest (Number)		0.00	400,000.00
Communities that have received monetary and non monetary benefits from the Program (Number)		0.00	2,000.00
Number of people involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities and receiving benefits from the ER Program (Number)		0.00	25,000.00
[Breakdown indicator]: Number of women involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities and receiving benefits from the ER Program (Number)		0.00	15,000.00
Generation of Emission Reduction Credits			
Volume of for-profit private sector finance leveraged to contribute to OFLP objectives (Amount(USD))		0.00	20,000,000.00
Number of smallholder farmers in private sector schemes adopting improved agricultural practices (Number)		0.00	10,000.00
Volume of not-for-profit finance (public or private) leveraged to contribute to OFLP objectives (Amount(USD))		0.00	30,000,000.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Volume of CO2e Emissions Reductions that have been measured and reported by the Program Entity and verified by a Third Party	This indicator measures the Volume (i.e., ERs) aspect of the transactions in CO2e. It is conditioned on the existence and operation of a National GHG Monitoring system to measure and report the ERs generated by the ER Program, from both the forestry and livestock sectors. All ERs generated by the ER Program during each Reporting Period are subject to Verification by an Independent Reviewer contracted by the World Bank Group in consultation with the Program Entity.	Reporting periods as set in ERPA.	National MRV system	Review of ER Monitoring Report and conclusions of the Third Party Verification	Emissions from the forest sector: EFD, OEPA/ORCU Emissions from the livestock sector (Phase 2): Livestock Sector Department of the MoA and Livestock Unit of BoA in Oromia
MRV systems set up and functional for all relevant land-use sectors (forest degradation, livestock, and land-use change)	This indicator will monitor the performance of the grant segments that support the creation of MRV infrastructure to effectively monitor ERs from all relevant land-use sectors.	Reporting periods as set in ERPA	ER Monitoring report	Review of ER Monitoring Reports	ORCU, EFD (MRV Unit), MoA (Livestock MRV Unit)
Emission Reductions payments distributed in accordance with an agreed Benefit Sharing Plan	This indicator seeks to capture the development aspects of the transaction. ERPA payments have to be	Reporting periods as set in ERPA	ER Monitoring Report	As part of the preparation of the ER Monitoring Reports	EFD, OEPA/ORCU, MoA, Oromia BoA, MoF

	distributed based on a Benefit Sharing Plan (BSP) that has been deemed acceptable to the World Bank. To be deemed acceptable to the World Bank, a BSP must meet all of the requirements, as detailed in criterion 3.6 of the ISFL ER Program Requirements. ER Monitoring Reports will have to provide evidence satisfactory to the World Bank Group that the Benefits have been shared in accordance with the BSP.				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
People in forest & adjacent community with monetary/non-monetary benefit from forest	Number of people benefiting from the BSP	Annual	ORCU based on the execution of the BSP		
Communities that have received monetary and non monetary benefits from the Program	This indicator will estimate the comprehensiveness of the program as a landscape approach. “Communities” are considered Kebeles (the	Reporting periods as set out in ERPA	ER Monitoring Report	Review of data from ER Monitoring report	ORCU

	local administrative unit). There are about 6,000 kebele in Oromia, out of which 35% are considered in "forest area." It is therefore expected that the benefits of the program for the first phase (forest) will impact at least 2,000 kebeles. The phase 2 (livestock) is expected to expand the geographic impact of the program.				
Number of people involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities and receiving benefits from the ER Program	This indicator aims to capture specifically the number of people in registered cooperatives involved in activities that generate income as a result of OFLP-ER program interventions.	Reporting periods as set out in ERPA	ER Monitoring Report	Review of data from BSP section of ER Monitoring report, looking at the registered forest coops and dairy and feedlot farmer coops in which payments have been made that aim to generate income.	ORCU
[Breakdown indicator]: Number of women involved in registered cooperatives that are engaged in forestry and/or livestock-related income generation activities and receiving benefits from the ER Program	See parent				
Volume of for-profit private sector finance leveraged to contribute to OFLP	This indicator reports the volume of for-profit private	Reporting periods as	Self-reporting by	ORCU assessment	ORCU, Steering

objectives	sector financing leveraged to support the OFLP. For-profit private sector organizations are defined as any non-governmental, for-profit organization ranging from small and medium sized enterprises to national and multinational firms.	set out in ERPA	ORCU/Steering Committee		Committee
Number of smallholder farmers in private sector schemes adopting improved agricultural practices	This will measure the number of smallholder farmers adopting improved practices through participation in OFLP-related private sector schemes (for example, adopting coffee stumping or improved livestock feeding and breeding practices, etc.)	Reporting periods as set out in ERPA	EFD Progress report	Data to be reported to PIU	ORCU
Volume of not-for-profit finance (public or private) leveraged to contribute to OFLP objectives	This indicator reports the volume of not-for-profit financing leveraged to support the OFLP. Not-for-profit organizations are defined as public or non-governmental organizations or initiatives, ranging from publicly funded programs to civil society organizations or roundtables.	Reporting periods as set out in ERPA	Self-reporting by ORCU/Steering Committee	ORCU assessment	ORCU, Steering Committee

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

Steering of the Project

1. **Overall responsibility.** The MoF at the federal level will sign the ERPA and take the overall fiduciary responsibility. The MoF will receive funds from the ERC purchase based on verified ER amount achieved by the program at the end of each ERPA phase and distribute ER benefits according to the BSP.

2. **Steering Committee.** The regional state's multisector REDD+ Steering Committee and Technical Working Group will provide strategic guidance and technical inputs, respectively, to guide the OFLP implementation. This is part of the Rural Development Cluster Steering Committee, which was re-established as part of the regional regulation # 242/2014 from October 28, 2021. The rural development cluster is chaired by the Vice-President of Oromia - head of the Agriculture Bureau and includes the BoA, the BoL, the Bureau of Water and Energy, the Bureau of Road and Logistic, the Bureau of Irrigation Development and Pastoralist, the Environmental Protection Authority, the Minerals Development Authority, the Agricultural Production and Input Control Authority, the Cooperative Promotion Agency, the Agricultural Research Institute, and the Disaster Prevention and Displacement Development Commission.

3. **Technical oversight**. The EFD will oversee the overall technical and policy dimensions of the program at the federal level according to Regulation 505/2022 aiming to determine the power, duties, and organization of the Ethiopian Forestry Development. OEPA will have the oversight responsibility for the OFLP-ERP in subsequent phases in the Oromia Regional State jurisdiction. OEPA was set up by Proclamation 199/2016 on July 20, 2016 (as amended recently by regional Regulation No. 242/2021 as above) and is officially mandated to oversee the forest sector in Oromia.

4. **Implementation and operational management.** The ORCU is the implementing unit for the OFLP, tasked with the program's day-to-day technical and administrative management including ER monitoring, reporting, and safeguards activity supervision to ensure the program's compliance with the ESF instruments. While the ORCU reports administratively to OEPA, it seeks strategic and tactical guidance from the Oromia Regional State Vice-President, given the multisectoral nature of the OFLP and land use challenges in the regional state.

5. The ORCU and OEPA will be supported by the EFD, which will have an oversight role particularly on MRV, safeguards, FM, and procurement.

Implementation Arrangements for the MRV

Baselines for Each GHG Emission Category

6. **Overall baseline.** The overall responsibility for the establishment of the baselines lies with the ORCU. As such, the ORCU is in charge of ensuring the data are provided by the various agencies and transmitted. The ORCU is also responsible for the calculation of baselines and estimation of precision.

7. The validation and confirmation of the baseline, as part of the validation of the ERPD phase, is done by the Steering Committee of the program based on the recommendations from the ORCU and EFD.

8. For the second phase, before the baselines for livestock and forestry are validated by the Steering Committee, a technical review by MoA, mainly the baseline related to livestock, will be performed. In particular, for the baselines related to livestock, the Oromia BoA Livestock Unit will provide a technical assessment.

9. **For the land use change (deforestation, afforestation).** The ORCU led and financed the data collection. The calculation is jointly performed with the EFD, and quality control will be done by the EFD.

10. **For the forest degradation.** The data collection is led by the EFD's MRV Unit assisted by the FAO with technical input from Silva Carbon on the methodology. Then, the EFD (REDD+ Technical Working Group) will be responsible for the calculation and estimation of the baseline (for Phase 2). This work is expected to be finalized in March 2023.

11. For the enteric fermentation. The data collection for baseline is led by the ORCU (through the one-off survey financed by the OFLP grant) with the support of UNIQUE (firm financed by Silva Carbon) and the Regional Livestock Bureau. The calculation of the baseline will be supported by UNIQUE and confirmation of the baseline at the technical level is the responsibility of the BoA together with the MoA (supported by the LFSDP PIU).

Measurement of Carbon Emissions and Reporting to ISFL

12. **Land use change (deforestation and afforestation - Phases 1 and 2) and forest degradation (Phase 2).** The data will be collected and processed by the EFD (MRV Unit) with the support of the ORCU to finance the data collection and ensure that data are transmitted according to the MRV plan.

13. Enteric fermentation. The ESS will collect data from the annual post-harvest surveys. The data will then be processed by the MoA to provide the final data to be used in the monitoring report.

14. **Monitoring report.** The monitoring report will be prepared by the ORCU and reported by the EFD to the ISFL as indicated in the MRV system set up table 5 in the main section. The ORCU will not only prepare the report on the GHG emissions based on the data provided by the various agencies as noted above. It will also add the following to the report: (a) the non-carbon benefit indicators, (b) the effectiveness of the safeguards system covering the underlying investments and the activities financed by the BSP, and (c) the correct implementation of the BSP. The monitoring report will be technically reviewed by the EFD and MoA and validated by the Steering Committee using the REDD+ Technical Working Group at the regional level.

I. Financial Management

a. FM Arrangements for the Grant (Component 2)

15. In line with the World Bank Directive 'Financial Management Manual for World Bank Investment Project Financing' (last revised in February 2017) and the Small Recipient-Executed Trust Funds Grants Guidance Note, an FM assessment was conducted for the OFLP-ERP IPF part (Component 2) to evaluate

the adequacy of the FM arrangements for the implementation of the proposed operation. The assessment has considered the current FM experience with the ongoing OFLP implemented by the EFD and other World Bank-financed projects implemented by the MoA.

16. The scope of the assessment includes the degree to which (a) the budgeted expenditures are realistic, prepared with due regard to relevant policies, and executed in an orderly and predictable manner; (b) reasonable records are maintained and financial reports are produced and disseminated for decision-making, management, and reporting; (c) adequate funds are available to finance the project; (d) there are reasonable controls over project funds; and (e) independent and competent audit arrangements are in place.

Detailed FM Arrangements

17. **Budget preparation.** Budget preparation for the grant will follow the FDRE's budget system recorded in the Government's Budget Manual. The budget for the grant will be determined each year based on the annual workplan. The EFD will receive budgets from the MoA and OEPA. It consolidates these and submits them for the World Bank's 'no objection'.

18. **Budget validation and proclamation.** The budget for the grant will be proclaimed under the respective federal-level implementers, that is, the MoA and EFD. Each implementing entity (EFD, MoA, and OEPA/ORCU) will prepare its own budget following its internal processes and approval systems. These will then be submitted to the EFD for consolidation.

19. **Budget control.** The approved budget should be disseminated to all program implementers on time. There is a need to compare actual expenditures with that of the approved budget to monitor progress and identify any impediments. Significant variations should be explained, and the analysis should be used as a management tool to make important decisions. Such analysis should be included in the project's IFR.

20. **Accounting.** The Government's accounting policies and procedures will be used for the accounting of these project grants. The MoA, EFD, and OEPA use modified cash basis of accounting.

21. **FM guidelines.** The project will have an FM guideline that sets out the FM requirements for this project, which involves the MoA, EFD, and OEPA/ORCU. The guidelines will also outline the relationship between all implementing agencies involved.

22. **Accounting system.** The federal implementing entities will use the IFMIS for accounting purposes whereas at the regional level, Peachtree/IBEX software will be used. There is experience in this regard among the implementing entities. A chart of accounts must be developed to account for transactions and report on program activities. Monthly, quarterly, and annual reports will be produced directly from the FM system and thus a well-developed chart of accounts is crucial.

23. **Staffing.** At the MoA, EFD, and OEPA/ORCU necessary FM experts should be recruited/assigned to manage the accounting, reporting, auditing, and overall FM of the grant.

24. **Capacity building/training.** Given that the EFD and OEPA/ORCU have implemented the OFLP grant successfully, and the MoA has ample experience in handling World Bank-financed projects, capacity

limitations are not expected. However, proper orientation should be provided to recruited/assigned staff. Where there is staff turnover, necessary training and orientation should be provided by the World Bank.

25. **Internal control** comprises the whole system of control, financial or otherwise, established by the management to (a) carry out program activities in an orderly and efficient manner, (b) ensure adherence to policies and procedures, (c) ensure maintenance of complete and accurate accounting records, and (d) safeguard the assets of the program. The implementing entities will apply the internal control processes and procedures of the Government. Additional requirements will be included in the FM guidelines as required.

26. **Internal audit.** The internal audit units of the respective implementing entities should include the project's activities in their annual workplan and conduct reviews at least annually. Updates on the reviews and findings should be reported in the IFRs.

27. **Financial reporting.** The program will prepare consolidated unaudited IFRs. These will be submitted to the World Bank within 45 days of the end of each semester. The format and the content, consistent with the World Bank's standards will be used. The EFD is responsible for receiving IFRs from the MoA and OEPA and consolidate these with its own for submission to the World Bank. All implementing entities have experience in preparing IFRs on a quarterly basis in other World Bank-financed operations. Hence, semiannual IFR preparation in this project does not seem to be a challenge.

28. **External auditing.** Considering the low amount of the grant and the short duration for Phase 1, an external audit will be conducted following the end of Phase 1, and the audited financial statement should be submitted to the World Bank within six months of the initial expected closing date of the EFD USD 750,000 grant (June 30, 2025). At this point, significant activities under the grant to the MoA would have been completed as well. A second audit will be conducted when the second phase/ the MoA grant of USD 1.2 million is closed. The audited financial statements should be submitted within six months of the closing date of the MoA grant (closing date: June 30, 2028). An audit report and Management Letter should be provided during both audits. The audit should be conducted as per an audit term of reference agreed with the World Bank. The audit should be conducted by the Office of the Federal Auditor General (OFAG) or an auditor assigned by OFAG and eligible to audit World Bank-financed projects. The EFD is responsible for coordinating the audit process and submit the audit report and Management Letter to the World Bank. The MoA and EFD should ensure rectification measures are taken for identified audit findings, if any. Current experiences show that the EFD submits audit reports on time although delays are also noted in some instances.

29. In accordance with its policies, the World Bank requires that the client discloses the audited financial statements in a manner acceptable to the World Bank. Following the formal receipt of these statements from the client, the World Bank makes them available to the public in accordance with its policy on access to information.

30. **FM-related costs.** The workplans and budget will include the costs for (a) accountants noted above if hired by the project, (b) audit, (c) supervision (for example, transportation, per diem, and accommodation while travelling), and (d) FM-related training and so on.

31. **Risk assessment.** The residual FM risk of the program is Substantial. This rating considers the risks under the ER payment and those discussed in the following paragraphs. The mitigating measures proposed in the action plan will help reduce the risk of the program during program implementation.

32. **Strengths and weaknesses.** The project will inherit the various strengths of the country's public FM system and will benefit from the experience of the implementing entities in other World Bank-financed operations. Several aspects of the public FM system function well, such as the budget process, classification system, and compliance with financial regulations. Significant ongoing work is directed at improving country public FM systems. The Government's existing arrangements are already being used in a number of World Bank-financed projects. The project will also benefit from the country's internal control system, which sufficiently provides for the separation of responsibilities, powers, and duties.

33. **The main weakness/challenge this project might encounter is staff turnover.** This might affect proper accounting and reporting activities. Timely rectification of audit findings is also another challenge requiring attention. To mitigate these risks, the following actions have been proposed and will be agreed with the Government.

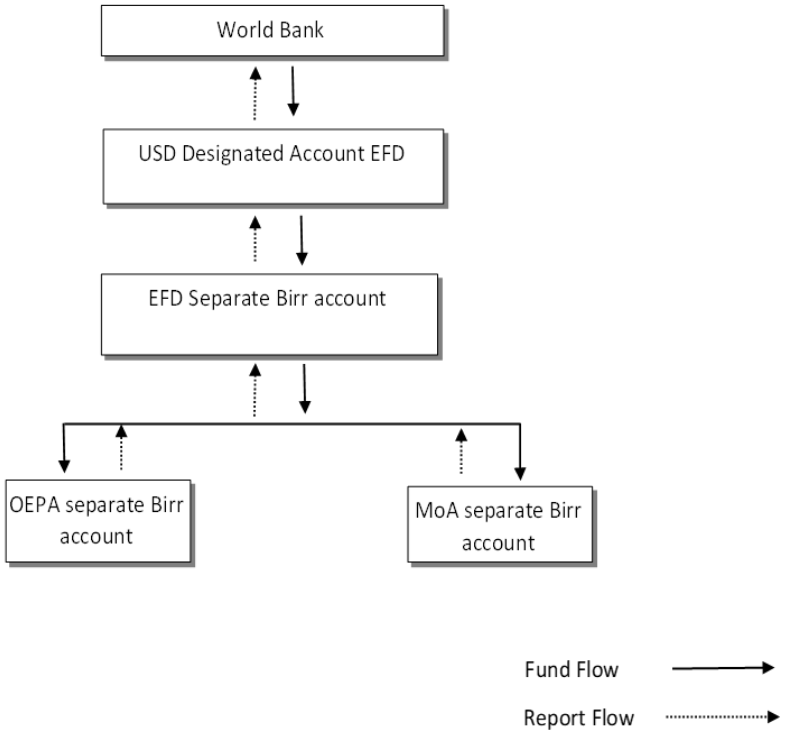
34. **FM covenants.** FM-related covenants include the (a) maintenance of a satisfactory FM system for the program, (b) submission of IFRs for the program for each fiscal semester within 45 days of the end of the semester by the EFD, and (c) submission of audited financial statements and the audit report within six months of the end of the respective grants

35. **Supervision plan.** The program will be supervised once every year. After each supervision, the risk will be measured and recalibrated accordingly. Supervision will include on-site visits, review of IFRs and audit reports, and follow-up on actions during various mission meetings.

Funds Flow and Disbursement Arrangements

36. The funds flow arrangement is depicted in figure 6. The grant funds will flow from the World Bank into one Designated Account to be opened by the EFD at the National Bank of Ethiopia, and funds from this account will then be transferred to a pooled local currency (Ethiopian birr) account to be held by the EFD. Before transferring any money to any other implementing entity, the EFD will ensure that separate bank accounts have been opened for the project and that there are adequate FM systems including capacitated staff. The EFD will then disburse to the MoA (which is the entity implementing the US$1.2 million grant) following the Government's Channel 2 fund flow mechanism. The EFD will also transfer funds to OEPA. The project may follow one or a combination of the following disbursement methods: advance to the Designated Account, direct payment, reimbursement, and special commitment.

Figure 6. Grant Funds Flow Arrangement (Component 2)



b. FM Arrangements for ER Payments and Distribution as per a BSP (Component 1)

37. The emission crediting transaction requires the program entity to distribute ER payments (that is, the ERPA revenue) in accordance with a BSP. Hence, the FM assessment for this activity (Component 1) reviewed the specific arrangements included in the BSP to ensure proper control, recording, and reporting of ER payment distributions to beneficiaries. Basic staffing structure, budgeting, accounting recording system and financial reporting, fund flow, audit arrangements, and internal control systems were discussed with the GoE. The World Bank provided advice on the FM of the funds transferred as part of the purchase of ERCs based on the best practices and lessons learned from other World Bank-financed projects with ER payment.

38. **Funds flow.** ER payments will be made by the World Bank to the MoF. ER payments will be made according to the terms and processes set forth in the ERPA. The eligible expenditure for the World Bank is the ER payment. As described in the BSP, the Dedicated Payment System is designed as follows:

(a) The MoF will transfer the funds it receives from the World Bank to recipients.

(b) The MoF transfers to the EFD its share at the federal level.

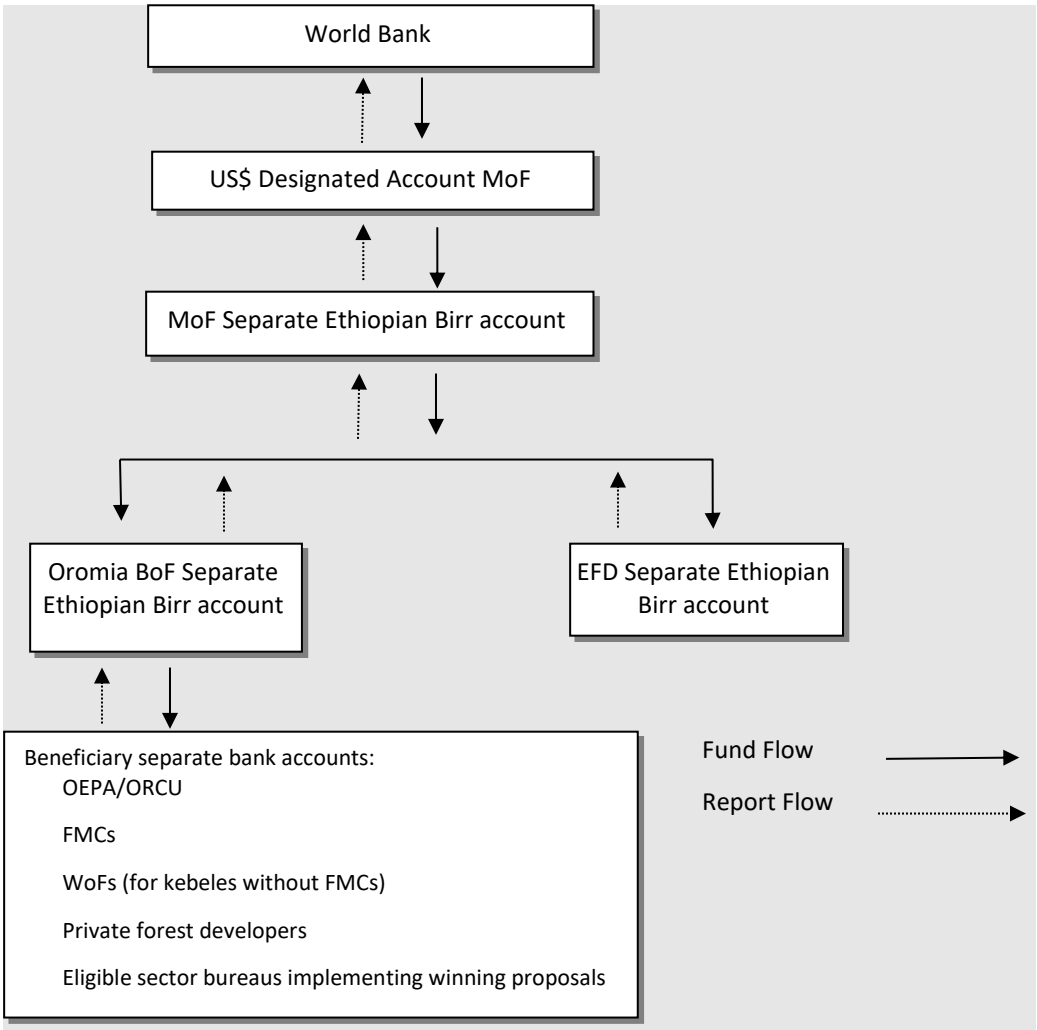
(c) The Oromia BoF will request the MoF to transfer funds to it according to the list of eligible beneficiaries received from OEPA/ORCU. This is a list approved by the OFLP Steering Committee. The MoF transfers the benefit and operational costs to the BoF accordingly and the BoF transfers these resources to the respective beneficiaries (OEPA, FMCs, the shares of

kebeles without FMCs to the WoF, private forest developers, and eligible sector bureaus implementing winning proposals).

39. The Government has experience in managing funds, as described above. This follows the Government's Channel 1 fund flow mechanism where the MoF and its regional and woreda counterparts (BoF and WoF) engage in the fund flows and corresponding reporting on the use of these funds.

40. These funds will be distributed/transferred to the respective recipients' separate bank accounts, as indicated in the fund flow diagram (figure 7). The MoF, Oromia BoF, and WoF should maintain proper records for funds distributed to each beneficiary. Detailed distribution procedures are laid out in the BSP.

Figure 7. Fund Flow and Reporting Diagram (Component 1)



41. **Reporting.** Reporting on funds received should be done as shown in figure 1.2. The MoF should consolidate the reports and submit IFRs semiannually to the World Bank within 45 days of the end of the semester. The Oromia BoF should collect reports from OEPA/ORCU, regional sector bureaus, WoF and report the consolidated regional data to the MoF. OEPA/ORCU is responsible for collecting the financial reports of FMCs and private forest developers and submitting them to the BoF. The EFD will submit its

report to the MoF. The Government has adequate experience in preparing and consolidating IFRs in this manner. Challenges might be encountered in obtaining reports from FMCs and private forest developers. The financial reports expected from these bodies should be simplified reports showing the amounts received from the BoF supported by bank statements and bank reconciliation.

42. **Accounting and staffing**. At the federal level (for the MoF and EFD), the IFMIS will be used to record transactions relating to the funds distributed/transferred. At the regional and woreda levels, IBEX will be used to record transactions and generate financial reports. The accounting system to be used by FMCs and private forest developers should be discussed and agreed with the BoF and WoF. These entities might use manual accounting due to capacity limitations. Hence, the OEPA/ORCU, Oromia BoF and WoF should ensure that reporting is done accurately. Training should be provided to enhance their capacity as applicable. The government structures at the respective levels use IFMIS and IBEX adequately and hence accounting challenges are not envisioned in using the accounting systems except for network-/connectivity-related issues (in remote areas) and gaps when staff turnover is encountered. All implementing entities should assign FM experts to manage the overall FM activities. The government entities' experience (those that are involved in the BSP) through World Bank-financed operations and the regular government activities through treasury enabled their finance staff to have adequate FM capacity. However, staff turnover should be mitigated as much as possible to ensure smooth FM. If a change of finance experts is required, the necessary orientation/training should be provided.

43. **Internal control.** The GoE's internal control processes will apply in addition to the controls included in the BSP. Monitoring of disbursement will be done by the MoF, BoF, EFD, WoF, OEPA, and OFLP Steering Committee. The responsibility of monitoring ER proceeds utilization (progress, effectiveness, and efficiency) lies with the EFD, OFLP Steering Committee, and OEPA. All recipients/beneficiaries should maintain proper records and documentation for the funds received. World Bank reconciliations should be prepared on a monthly basis. The Government's internal control systems function well and provide adequate segregation of duties although gaps are noted in internal audit functions.

44. **External audit.** The financial report prepared to account for the funds distributed should be audited by external auditors annually and the audit report and Management Letter should be submitted to the World Bank within six months of the end of the fiscal year by MoF. The audit should specifically look at the project's activities relating to the distribution of ER payments to entitled beneficiaries according to the BSP. The MoF has ample experience in facilitating such audits and submitting audit reports on time to the World Bank.

45. **Implementation Support Plan.** During implementation, the World Bank will conduct supervision to review whether the procedures and requirements in the BSP are being implemented as agreed. This will enable the World Bank to verify that the BSP is being implemented in a manner acceptable to the World Bank and consider remedial actions as required. In addition, the World Bank may decide to organize and conduct TPM to review and assess implementation of the BSP. The scope of the review may include the adequacy of the flow of funds, staffing and internal controls, and reporting arrangements. The TPM may also include the review of individual transactions with the purpose of verifying the effective operation of internal controls and oversight mechanism and also consider issues flagged by World Bank supervision, as relevant, and provide recommendations on strengthening measures.

II. Procurement

Applicable Procurement Regulations - Only for Grants

46. Procurement under the proposed project will be carried out in accordance with the World Bank's Procurement Regulations, Anti-Corruption Guidelines, and the provisions stipulated in the Legal Agreement.

47. The Procurement Regulations are designed to support a modern, fit-for-purpose Procurement Framework. The Procurement Regulations detail many options to tailor individual procurement processes to meet the operational needs under the project and to deliver the right results. The procurement activities under this project would include consultants; laboratory analysis and equipment and facilities for the livestock MRV system; PIU staff time (MRV staff, program coordinator, and safeguards management); computers, tablets, GPS, internet devices/dongles, printers, and so on; and capacity-building items. The procurement arrangements under the project are made in accordance with the provisions of the Procurement Regulations to ensure that the correct procurement approach is used to deliver the right results. By designing the right procurement approach, there is far more likelihood of the right bidders participating, better bids being received, and an overall increased chance of achieving value for money.

48. The Procurement Regulations are guided by the core procurement principles of value for money, economy, integrity, fit for purpose, efficiency, transparency, and fairness. The Procurement Regulations support these core procurement principles by providing many choices for the borrower to design the right approach to the market.

49. Standard Procurement Documents issued by the World Bank to be used by borrowers for IPF-financed projects include the General Procurement Notice, Specific Procurement Notice, Request for Expression of Interest, Request for Proposals, and Request for Bids documents. These documents will be used for works, goods, and consulting and non-consulting services to be procured through international open competitive bids and for consulting services contracts. In addition, the implementing agencies will use Standard Bid Evaluation Forms for procurement of goods, works, and non-consulting contracts and the Sample Form of Evaluation Report for selection of consultants and the mandatory use of STEP.

National Procurement Procedures

50. When approaching the national market, as shall be agreed in the Procurement Plan, the country's own procurement procedures may be used. The World Bank has reviewed the Standard Procurement Documents issued by the Federal Public Procurement and Property Administration Agency of the FDRE for procurement of goods and works and has found them acceptable and consistent with the World Bank's procurement principles. Hence, national open competitive bids shall follow the procedure set forth in the Ethiopian Federal Government and Procurement and Property Administration Proclamation No. 649/2009 and Federal Public Procurement Directive issued by the then Ministry of Finance and Economic Cooperation (MoFEC), dated June 10, 2010, provided that such procedure shall be subject to the following requirements as provided in section 5, paragraph 5.4 of the Procurement Regulations for IPF Borrowers (November 2020):

- Open advertising of the procurement opportunity at the national level.

- The procurement is open to eligible firms from any country.
- The Request for Bids/Request for Proposals document shall require bidders/proposers submitting bids/proposals to present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation to the World Bank's right to sanction and the World Bank's inspection and audit rights.
- Contracts with an appropriate allocation of responsibilities, risks, and liabilities.
- Publication of contract award information.
- Rights for the World Bank to review procurement documentation and activities.
- An effective complaint-handling mechanism.
- Maintenance of records of the procurement process.

51. Other national procurement arrangements (other than national open competitive procurement) that may be applied by the borrower (such as Limited/Restricted Competitive Bidding, Request for Quotation [RFQ]/Shopping/Local Bidding, and Direct Contracting) shall be consistent with the World Bank's core procurement principles and ensure that the World Bank's Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply.

Procurement Oversight and Monitoring Arrangements

52. Mandatory thresholds for prior review for the proposed project based on procurement risk levels of the project are provided in table 1.1. Based on the risk level of the project, procurement above the applicable thresholds as provided in the table shall be subject to prior review and shall be included in the Procurement Plan. For contracts to be awarded using Direct Selection, the borrower shall submit to the World Bank, for its review and 'no objection', a sufficiently detailed justification, before inviting the firm to negotiations.

53. Based on the initial risk rating, which is 'High', the implementing agency of the proposed project shall seek the World Bank's prior review for equivalent value of contracts, as detailed in table 1.1.

Table 1.1. Thresholds for Procurement Approaches and Methods (US$, millions)

					Short List of National Consultants	
Category	**Prior Review**	**Open International**	**Open National**	**RFQ**	**Consulting Services**	**Engineering and Construction Supervision**
Works	≥5.0	≥7.0	<7.0	≤0.2	n.a.	n.a.
Goods, IT, and non-consulting services	≥1.5	≥1.0	<1.0	≤0.1	n.a.	n.a.
Consultants (Firms)	≥0.5	n.a.	n.a.	n.a.	0.2	0.3
Individual consultants	≥0.2	n.a.	n.a.	n.a.	n.a.	n.a.

Assessment of the Agency's Capacity to Implement Procurement

54. A procurement capacity assessment of the implementing agencies (including the LFSDP) was carried out by the World Bank. Based on this assessment, the procurement risk factor is substantial. The lead institution for procurement is/will be Oromia Environmental Protection Authority (OEPA) whose previous name was Oromia Environment, Forest and Climate Change Authority (OEFCCA). ORCU as the PIU is hosted in OEPA.

55. An assessment of the capacity of ORCU/OEPA and LFSDP to implement procurement of this grant was carried out by the World Bank Country Office in August 2014 and April 2015 with the appraisal for OFLP and for the following years including annual IPA concluded with the latest PPR report on last June 2022 and, an assessment carried out during the midterm review of the LFSDP. This assessment carried out for the proposed implementing entities was reviewed the organizational structures and the capacity of the responsible staffing for implementing procurement activities of the project and, the assessment also investigated the legal aspects and procurement practices, procurement cycle management, organization and functions, documentation and record keeping, and the procurement environment in general.

The procurement capacity assessment has revealed risks associated with organization and staffing of the procuring entities. Generally, the procurement capacity problem in terms of lack of qualified and procurement proficient personnel still remains a challenge.
Moreover, the assessment recognizes that the OEPA and LFSDP now have good experiences of implementing World Bank-financed projects but still the risks remain “substantial”.

56. The assessment has revealed that key issues and risks need to be addressed for implementation of the procurement aspects of the project. The key issues and risks for implementation of procurement under the project include the following:

- **Lack of qualified procurement staff** particularly in the enterprise main office and branch offices. The enterprise handles procurement process management and contract administration work (from advertising up to acceptance of procured materials or services). The procurement case team is under the Finance, Procurement, and Property Administration Directorate of the OFWE. The unit has one unit leader and two assistant experts as procurement staff. Both the unit leader’s and the assistants’ work experience in procurement management is more than three years. Moreover, all the staff have no working experience with the World Bank or other funding agency procurement procedures.
- **Poor record keeping** and procurement document filling system of the procurement unit is always an issue during different reviews. Procurement documents from advertising to contract award and contract documents from the contract agreement to the final project acceptance letter are not properly maintained and protected from loss and unauthorized access.
- **The experience of the OFLP in preparation of the bidding documents.** The procurement unit mostly prepared the bidding document for National Competitive Bids (NCBs) for goods, non-consultancy services, and Shopping. It is not familiar with the preparation of bidding documents, procurement process management, and contract administration for RFB, goods contracts and civil works, and consultancy services The quality of bidding documents prepared by the project for NCB goods is satisfactory. The bidding document is prepared based on the Federal Public Property and Administration Agency standards. The structure of

NCB bidding document is complete and contains the required standards and the minimum required information for the bidder. The Ethiopian Herald and Addis Zemen newspapers are the two public media for advertising NCB. The enterprise provides a minimum of 15 days for Shopping, 26 days for NCB, and 45 days for International Competitive Bidding. It also uses the Standard Request for Quotation prepared in Amharic while conducting Shopping procurement procedures. The Standard Request for Quotation contains all basic information for bidders.

- Moreover, the proposed project is to be carried out using the Procurement Regulations. Capacity-building efforts to familiarize the procurement and related staff with the Procurement Regulations for IPF Borrowers need to be considered and included in the design of the project.
- For the LFSDP's latest procurement assessment, the procurement performance and procurement risk have been rated 'Moderately Satisfactory' and 'Substantial', respectively, in successive missions. It was noted that the agreed procurement arrangement has been in place except at the Federal Project Coordination Unit (FPCU) and in conflict-affected areas and all the PIUs at the regional levels have been hired and retained qualified procurement experts. In collaboration with the Bank Team the project was provided training on STEP system which has helped in addressing recurrent challenges in the use of STEP. In addition, the project prepared a procurement manual including the community driven development (CDD) procurement manual, which has facilitated procurement implementation at the local level.
- In the midterm review mission, the volume of procurement activities implemented at the local level including common interest groups (CIGs), and the performance thereof, has not been reported and remained unknown. In addition, the impact of the internal conflict on the procurement system and capacity in affected areas, including in Tigray region, is yet to be assessed. The client is urged to carry out a quick assessment of the impact using the checklist prepared by the World Bank team and report as soon as possible.

57. A summary of the risks to procurement under the project and the proposed procurement capacity enhancement measures to mitigate the risks, is presented in table 1.2.

Table 1.2. Summary of Findings and Actions (Risk Mitigation Matrix)

2.3. Summary of Findings and Actions	Issue/Risk	Severity and Impact on Project	Mitigation Measures	Responsible Entity and Time Frame (All Actions to Be Taken within the First Three Months of the Loan Approval)
1.	Lack of procurement-proficient staff in the implementing agency	High	Induction of regular procurement capacity enhancement training on the World Bank's New Procurement Regulations	World Bank team. ORCU/OEPA and LFSDP
2.	Delay in Procurement Plan approval process	Substantial	Procurement Plan preparation and approval should be part of the annual workplan and	ORCU/OEPA and LFSDP

2.3. Summary of Findings and Actions	Issue/Risk	Severity and Impact on Project	Mitigation Measures	Responsible Entity and Time Frame (All Actions to Be Taken within the First Three Months of the Loan Approval)
			budgeting approval process and capital	
3	Low quality of Procurement Plan and inadequate implementation monitoring and tracking system	Substantial	Provision of training on Procurement Plan preparation, design and implementation of a procurement tracking system, and implementation of monitoring and ongoing World Bank support	World Bank team. ORCU/OEPA and LFSDP
4	Low-quality and incomplete bidding documents/RFQs and use of nonstandard bidding documents/RFQs at the regional and subnational levels	Substantial	Create capacity on the use of standard bidding documents/RFQs with the objective of producing and issuing quality bidding documents/RFQs	ORCU/OEPA and LFSDP
5	Inadequate record management system	Substantial	Keep records in safe and secure place without exposure to unauthorized personnel Establish record retrieving system	ORCU/OEPA and LFSDP
6	Delays in preparation of terms of references/specifications (technical) for planned procurement activities; delay in implementation of planned procurement activities	Substantial	Develop accountability framework with defined business standard and engage beneficiary technical departments as early as possible Involve qualified technical experts (consultants) to support preparation of technical specifications and functional requirements of bidding documents and terms of references	ORCU/OEPA and LFSDP
7	Inadequate contract management practice /delay in delivery of goods	Substantial	Training to be provided on the basics of contracts administration and management to OPEA staff	ORCU/OEPA and LFSDP

Procurement Plan

58. The borrower has agreed to prepare the PPSD, which will form the basis for a Procurement Plan for the first 18 months of the project life and which also provides the basis for the procurement methods and approaches. This plan will be agreed between the borrower and the project team and will be available at the PIU in the ORCU and covers all sources of financing for this proposed project.

59. The project will use the World Bank's online procurement planning and tracking tool STEP for all transactions. The Procurement Plan will be updated by the project team annually or as required to reflect the actual project implementation needs and as agreed with the World Bank. After obtaining the World Bank's approval for the plan, all documents at each stage of the procurement process will be uploaded in STEP for the World Bank's prior or post review or any audit if needed.

Procurement Arrangement and Value for Money

60. The procurement objective of the project is to procure the best quality commercially available requirements, which are suitable for project beneficiaries. The procurement objective also aims at delivering the best quality capacity-building items, consultancy services, and goods for project activities. To attain these objectives, the overall procurement objective of attaining value for money through integrity and sustainable development shall also be upheld.

61. The procurement arrangements, which will be provided under the PPSD for this project, aim at meeting the objective of attaining value for money in the procurement of goods and services under the project.

ANNEX 2: Description of the Oromia Regional State

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

Description of the Regional State

1. Ethiopia's largest forested landscapes are found in Oromia Regional State, which provides critical ecosystem services to the country and the region. Most of Oromia's high forest (moist montane forests) is found in the Bale landscape in the Southeast and the Jimma/Wollega/Ilubabor landscape in the west. Bale serves as the water tower for Ethiopia's eastern dry lands in Oromia and the Ethiopia Somali Regional State and the Federal Republic of Somalia. Oromia contains globally important biodiversity with endangered endemic species such as the Abyssinian wolf and the mountain nyala. Oromia's western forests are home to endemic coffee (*Coffea arabica*) that has high potential as a value-added export and harbors wild varieties of the species. Important rivers also originate in or are affected by Oromia's forests, including those flowing into the new Renaissance Dam, which is under construction.

2. Oromia is also home to the most productive rural landscapes in Ethiopia. Apart from the forest, agriculture, livestock, and settlement mosaics are the dominant characteristic feature of these landscapes. More than 88 percent of the human population of the region makes a living from the land in rural areas. The Oromia region is also home to the largest livestock population in Ethiopia (24.4 million) (CSA 2018).[40] However, the practice of unsustainable management of land resources in Oromia has resulted in changes in land use and affects the livelihoods and welfare of the local community.

3. The Oromia Regional State is organized in 277 woredas and about 6,800 kebeles.

Table 2.1. Kebele/Woreda per Zone

Main Zones	Woreda	Kebele
Arsi	25	563
Bale	21	411
Borena	10	201
Burayu S. Z.	1	3
East Hararge	18	550
East Shewa	14	371
East Wellega	16	306
Guji	12	319
Horo Gudru Wellega	10	188
Ilu Aba Bora	24	541
Jimma	17	579
Jimma Spe Town	1	1
North Shewa	18	344
Qeleme Wellega	11	263
South West Shewa	14	328
West Arsi	12	352
West Hararge	14	402
West Shewa	20	588
West Wellega	19	503
Total	**277**	**6813**

[40] CSA. 2018. *Agricultural Sample Survey 2017/18, Volume II Report on Livestock and Livestock Characteristics (Private peasant holding)*.

Summary of the Program GHG Inventory

4. Table 2.2 shows the average net emissions and removals per subcategory (positive values mean emissions while negative values are removals) for the 2008–2017 period for agriculture and the LULUCF sector. This is done in the sense that the 10-year period shows more representative values rather than one-year emissions or removals, which would be a specific point in a period with fluctuations in emissions and removals. The relative contribution to the absolute level of the total GHG emissions and removals are also included in the program GHG inventory.

Table 2.2. Summary of the Program GHG Inventory

Subcategory	NetEmissions (tCO_2eq)	Contribution (%)	Associated Carbon Pools and Gases
Forestland remaining forestland	31.259.717	33.86	CO_2 in aboveground biomass (AGB), belowground biomass (BGB), soil organic carbon (SOC), and deadwood (DW)
Enteric fermentation - cattle	15,979,848	17.31	CH_4
Cropland remaining cropland	13,372,053	14.48	CO_2 in AGB, BGB, SOC, and DW
Agriculture soils, emissions from managed soils	7,798,394	8.45	N_2O
Forestland converted to cropland	4,407,034	4.77	CO_2 in AGB, BGB, SOC, and DW
Forestland converted to grassland	4,151,762	4.50	CO_2 in AGB, BGB, SOC, and DW
Manure management, cattle	4,113,562	4.46	CH_4
Agriculture soils - Indirect emissions from managed soils	2,380,722	2.58	N_2O
Enteric fermentation, other livestock	2,188,222	2.37	CH_4
Grassland converted to cropland	1,154,184	1.25	CO_2 in AGB, BGB, SOC, and DW
Grassland remaining grassland	−1,001,930	1.09	CO_2 in AGB, BGB, SOC, and DW
Enteric fermentation, sheep	973,120	1.05	CH_4
Manure management, other livestock	741,572	0.80	CH_4
Settlement remaining settlement	−655,032	0.71	CO_2 in AGB, BGB, SOC, and DW
Manure management, Indirect N_2O emissions	628,497	0.68	N_2O
Grassland converted to forestland	−550,119	0.60	CO_2 in AGB, BGB, SOC, and DW
Cropland converted to forestland	−280.517	0.30	CO_2 in AGB, BGB, SOC, and DW
Harvested wood products (HWP) - Stock-change approach	−258,135	0.28	CO_2 in AGB, BGB, SOC, and DW
Manure management sheep	231,886	0.25	CH_4

Subcategory	NetEmissions (tCO_2eq)	Contribution (%)	Associated Carbon Pools and Gases
Cropland converted to settlement	64,126	0.07	CO_2 in AGB, BGB, SOC, and DW
Cropland converted to grassland	−44,292	0.05	CO_2 in AGB, BGB, SOC, and DW
Settlement converted to cropland	39,308	0.04	CO_2 in AGB, BGB, SOC, and DW
Urea application	26,658	0.03	N_2O
Grassland converted to settlement	−13,708	0.01	CO_2 in AGB, BGB, SOC, and DW
Grassland converted to other land	−2,814	0.00	CO_2 in AGB, BGB, SOC, and DW
Rice cultivation	0,681	0.00	CH_4
Total	86,576,549	100.00	n.a.

5. Table 2.3 shows the contribution of the subsectors contribution to the total GHG emissions in the agriculture sector (CO_2eq) for the year 2016.

Table 2.3. Subsector Contribution to the Total GHG Emissions from Agriculture (CO_2eq) in 2016

Subsector	GHG Emissions	%
Agriculture	37,856.8	100.00
3.A.1 - Enteric fermentation	20,114.5	53.00
3.A.2 - Manure management	5,475.5	14.00
3.C.3 - Urea application	15.8	0.04
3.C.4 - Direct N_2O emissions from managed soils	8,826.9	23.00
3.C.5 - Indirect N_2O emissions from managed soils	2,758.0	7.00
3.C.6 - Indirect N_2O emissions from manure management	666.1	2.00

Source: ERPD 2019.

6. In 2016, 53 percent of emissions were due to methane emission from enteric fermentation, which is mainly as a result of the level of livestock population in the Oromia region and its growth explains the upward trend in emissions. On the other hand, direct N_2O emission from managed soil and emission from manure management contribute 23 percent and 14 percent of the total agriculture emission, respectively.

Drivers of AFOLU Emissions and Removals

7. In the CRGE Strategy Plan, it is estimated that in Ethiopia, in 2010, around 87 percent of GHG emissions came from the AFOLU sector: agriculture with roughly 50 percent and forestry with approximately 37 percent. These sectors have also the highest potential for GHG ERs: they contribute around 45 percent and 25 percent, respectively, to projected GHG emission levels under business-as-usual assumptions and together account for around 80 percent of the total abatement potential.

8. The drivers of AFOLU emissions and removals in Oromia Regional State are multisectoral and multidimensional. The main drivers are agricultural land expansion, increase in production, synthetic fertilizer use, fuelwood demand, forest coffee plantation and management, unsustainable logging and overgrazing, high demand for forest products (construction materials including furniture), ecosystem

restoration (removal), lack of livestock value chain improvement, poor livestock management, and weak extension services. Other drivers are a complex combination of economic issues, ineffective land-use planning and enforcement and inadequate cross-sectoral policy and investment coordination, technological and climate change factors, cultural or sociopolitical concerns, and demographic factors.

9. At the regional scale, AFOLU sectors represent an important source of emissions, being forestland remaining forestland (forest degradation), enteric fermentation from cattle, forestland converted to grassland, and forestland converted to cropland (deforestation).

Descriptions of the Drivers by Categories

10. The following paragraphs elaborate the summary of main drivers by subcategories and detail descriptions are given in the ERPD - **Error! Reference source not found.**.

Forestland Remaining Forestland

11. Extensive extraction of fuelwood for commercial and subsistence purposes, forest coffee plantation and management, unsustainable logging, and overgrazing are the major direct drivers in this subcategory. The underlining drivers are increase in population, socioeconomic factors, ineffective policy implementation and enforcement, lack of effective land use plan, and absence of clarity in forest tenure. With respect to drivers for emissions removal in this subcategory, these removals are mainly due to ecosystem restoration activities. In standing native natural forest, not only degradation occurs but also enhancement through ecosystem restoration. Interventions including PFM (with enrichment planting and area enclosure), sustainable land management initiatives, and designation of forests as biosphere reserves could lead to enhancement and improved forest restoration (FARM Africa, Ethio Wetlands and Natural Resource Association [EWNRA], OFWE, Yayu Biosphere Reserve, SLMP2, mass mobilization by the Government, and so on). In response to the decline of the natural forest area, a large-scale plantation program has been initiated to rehabilitate formerly forested areas for construction and fuelwood production. Plantations are mainly of exotic tree species with few indigenous trees in few of the National Forest Priority Areas NFPAs (FAO 1990, as cited in Forestry Outlook Studies in Africa 2001[41]).

Enteric Fermentation - Cattle

12. Ethiopia has the largest livestock population in Africa and the fifth largest in the world. The Oromia region has about 24.4 million cattle (CSA 2018[42]), of which 45 percent is estimated to be dairy animals. The key driver in this subcategory is increase in cattle population. This is combined with low efficiency and relatively high emission intensity (that is, emissions per unit of product) specially in dairy cattle. The estimated average GHG emissions is 19 kg CO_2eq per kg milk among mixed crop-livestock systems in Ethiopia against an average of 9 kg CO_2eq per kg milk in Sub-Saharan Africa (see **Error! Reference source not found.**). Causes for the low efficiency include inadequate supply of quality feed, poor animal health due to disease prevalence, low livestock genetic make-up, poor manure management, low reproductive efficiency and weak herd management, limited adoption of improved livestock practices, poor provision

[41] Forestry Outlook Studies in Africa (2001).
[42] CSA. 2018. *Agricultural Sample Survey 2017/18, Volume II Report on Livestock and Livestock Characteristics (Private peasant holding).*

of livestock support services, and low commercial market off-take due to inadequate processing and marketing infrastructure (FAO 2017[43]).

Forestland Converted to Cropland and Forestland Converted to Grassland

13. The major direct drivers of forestland conversion to cropland and to grassland in Oromia are agricultural land expansion (small-scale subsistence and medium- to large-scale commercial) and increase in livestock population. The underlying drivers are a complex combination of socioeconomic issues, ineffective land use planning, inadequate cross-sectoral policy, and investment coordination, specifically changes in policies linked to land tenure and demographic factors (UNIQUE and Climate Focus, 2015[44])

Grassland Converted to Forestland and Cropland Converted to Forestland (Removal)

14. The major causes of grassland and cropland conversion to forest land are high demand for forest products (fuelwood and timber), high economic return from forest products, and the need for restoration of degraded land. The other causes are increased emphases by policy makers for regreening and multiple benefits of forests for ecosystem services including climate change mitigation and adaptation. In Ethiopia, the demand for wood is increasing owing to population and economic growth. However, domestic supply continues to decline due to deforestation and low level of investment in plantation forests. The state influences the actions of these agents through its institutions and legal framework. Accordingly, the state's policies are supportive of A/R undertakings for environmental restoration, including by NGOs and bilateral and multilateral agencies, while farmers' A/R activities are largely for economic gains (Mulugeta and Habtemariam 2014[45]).

[43] FAO and New Zealand Agricultural Greenhouse Gas Research Centre (2017).
[44] *Analysis of Causes of Deforestation and Forest Degradation in the Oromia Regional State and Strategy Options to Address Those (UNIQUE forestry and land use, CONSCIENTIA, 2015) and Legal and Institutional Framework for Oromia Forested Landscape Program. Final report, Addis Ababa (Climate Focus, 2015).*
[45] Lemenih, Mulugeta, and Habtemariam Kasa. 2014. "Re-Greening Ethiopia: History, Challenges and Lessons." *Forests* ISSN 1999-4907.

ANNEX 3- Planned Actions Contributing to the Reduction of Emissions in Oromia

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

Subcategory	Driver (emission and removal)	Proposed Mitigation/Enhancement Measures
Forestland remaining forestland	• Extraction of fuelwood for commercial and subsistence purposes • Forest coffee plantation and management • Unsustainable logging • Overgrazing • Ecosystem restoration. • Ineffective land use planning • Forest tenure	• Small- and large-scale afforestation and reforestation (plantation) • PFM • Cookstoves and biogas • Coffee intensification outside the forest area, coffee value chain improvement (processing - marketing), coffee certification • Improve value chain of non-timber forest products • Introduce wood industry and environmentally sound non-wood alternative technologies • Rangeland management, feed enhancement, and improvement of the livestock value chain • Sound land use planning and law enforcement • Clarity in forest tenure
Enteric fermentation	• Increase in cattle population • Inadequate supply of quality feed • Poor animal health and provision of livestock support services • Reproductive inefficiency and low livestock genetic make-up • Limited adoption of improved livestock practices. • Poor manure management • Weak herd management and low commercial market off-take	• Improving quality and availability of feed resources • Diversifying the animal mix • Improving animal health and husbandry • Manure management • Improving the genetic potential of local breeds • Cattle value chain improvement
Forestland converted to cropland and grassland	• Agricultural land expansion (small-scale subsistence, medium- to large-scale commercial) • Increase in livestock population • Socioeconomic factors • Ineffective land use planning • Inadequate cross-sectoral policy and investment	• Agricultural intensification • Participatory forest management • Sound land use planning and law enforcement • Afforestation/reforestation • Improving rangeland management • Feed enhancement

Subcategory	Driver (emission and removal)	Proposed Mitigation/Enhancement Measures
	coordination • Land tenure • Demographic factors	• Family planning services and multisectoral coordination • Climate-smart agriculture implementation and scale-up/out • Rehabilitation of degraded landscapes
Grassland and cropland converted to forestland	• High demand for forest products (fuelwood and timber) • High economic return from forest investment • Land degradation • Increased emphases by policy makers • Multiple benefits (ecosystem services)	• Small- and large-scale afforestation and reforestation (plantation) • Area enclosure (rehabilitation) • Adopting sound land use planning and tenure

ANNEX 4: Gender Analysis of the OFLP

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

National Context

1. The Ethiopian Government has expressed its commitment to the international convention on the elimination of all forms of discrimination against women. This commitment is reflected in the issuance of the National Policy on Ethiopian Women (Women's Policy) in 1993 an in the National Constitution of 1995. Gender issues have also been reflected in several more recent sectoral policies and strategies.

2. Despite this notable progress, there is still significant room for growth in mainstreaming gender policy in sectoral programs, projects, and activities. For example, the Oromia Rural Land Use and Administration Proclamation No. 130/2007 and the Oromia Forest Proclamation No. 72/2003 give insufficient attention to women's needs and priorities. Other policies, while including some articles related to gender, lack gender responsiveness in implementation. These critical gaps come as a result of various constraining factors, including limited political commitment from sectoral bureau heads, the assignment of people with limited expertise in gender issues to lead gender departments or act as gender focal persons, limited technical capacity, insufficient M&E systems, a lack of financial resources, and limited workplace gender consciousness. Community norms, social hierarchy, institutional structures, economic factors, legal and political factors, and other sociocultural norms also perpetuate gender inequality and limit women's control over and access to resources.

Gender Context in Oromia

The three roles of rural women: food producers, resource managers, and family caretakers

3. Women in Oromia have three vital, though sometimes conflicting, roles: food producers, resource managers, and family caretakers. Women are often responsible for providing their households with the necessities of life: food, fuel, and water. As such, they rely heavily on natural resources. In contrast, men in Oromia are seldom responsible for collecting and using natural resources for the household. This triple role also means that rural women tend to work longer hours than men.

4. As fuelwood remains a major source of energy for cooking in rural Oromia, women spend substantial amounts of time gathering and transporting fuelwood from community forests, private lands, and illegally from the national forests. Forest/environmental degradation, deforestation, and prohibitions on resource extraction in certain locations disproportionally weigh on women, who may need to travel longer distances to provide for their families if they cannot collect provisions closer to home due to any of these factors. Traveling long distances exposes women to greater physical risk, including rape or attack by wild animals.

5. Collection activities, especially far from home, compete with women's caretaking responsibilities, such as food preparation, childcare, and providing for the household's nutrition. There is compelling evidence that women tend to make greater contributions to household food security than men. Women

often need to prioritize food production and family caretaking responsibilities over their longer-term responsibilities of sustainably managing resources.

6. The substantial time women spend collecting fuelwood, and how this vital task competes with women's other social responsibilities, speaks to the need to develop improved cookstoves and biogas construction enterprise associations; provide specialist technical support in demand creation, market promotion, and business links; facilitate expansion of access to electricity in rural off-grid areas; provide technical assistance for the private sector to become involved in renewable energy production and distribution; and promote renewable and energy-efficient sources to potential customers. Such investments will enable rural women to spend less time gathering fuelwood and use their specialized knowledge about the use and management of resources to become environmental stewards. This would also enable women's education, as young girls are also often held back from school to help collect fuelwood and water.

Economic Assets and Land Tenure

7. Men in Oromia tend to have greater control over households' economic assets, and it is common practice to register land in the name of the head of the household—usually a man. Women are therefore less likely than men to have land use certificates. As shown in the survey conducted for the OFLP gender consultancy, 73 percent of women respondents with land use rights have land use certificates, compared to 82 percent of men respondents. However, most rural land use certificates include both the names and photographs of husbands and wives, and women participants in the focus group discussions stressed that their access to and control over land has improved remarkably in recent years due to rural land certification. This new legislation also stipulates that, in the case of divorce, property is equally divided between husband and wife. Wives also now generally inherit property upon the death of their husbands, especially if they have common children (though usually this process is easier for women if the common child/children is/are (a) sons). Some women in polygamous marriages also reported that their names and photos were included on land use certificates alongside their husbands.

8. While land tenure certificates may include women's names, the gender analysis done for the OFLP found a clear gendered difference in the feeling of tenure security among respondents who have land use certificates. Only 59 percent of women respondents who have land use certificates felt secure in their land tenure rights, whereas 87 percent of men felt secure. Use of the land resources themselves is also generally divided according to gender. Women, for instance, may collect branches and limbs from trees, whereas only men may have the right to harvest the trees.

Household and Community Decision-making

9. Women are less likely than men to be represented in decision-making at all levels, including in the political and legal systems, as well as at the community and household levels. Women's equal participation in decision-making at the household and community levels continues to lag due to a myriad of sociocultural factors. Male relatives tend to mediate women's access to information, markets, and credit, significantly limiting their opportunities to meaningfully participate. Households headed by women (constituting about 20 percent of rural farmers) often do not have time to participate in decision-making processes and otherwise lack information on when and how to participate. These factors mean that men tend to dominate farmers' organizations and commercial networks.

10. Further, agricultural extension services and technology development are frequently targeted at men, as organizations providing these services wrongly assume that men will pass on the relevant information to women. While it is conceivable that men may pass on this information to their wives, this leaves female-headed households at a disadvantage in learning about, accessing, and adopting improved agricultural practices. Female-headed households also have less capital stock, less productive labor, and less land and are more likely to be food insecure.

OFLP's Expected Contribution to Addressing Gender Gaps

11. As women in Oromia are more dependent on natural resources than men, they are also more likely to be directly vulnerable to the effects of climate change; it is also the reason for women to be more involved in the definition and implementation of the policies affecting natural resource management.

a. Mainstreaming Gender in the OFLP

12. The OFLP seeks to mainstream gender in its programming. The overall objective of mainstreaming gender within the OFLP projects is to have a gender-sensitive project that provides a signal to measure gender-related changes in social, political, and economic participation. Gender mainstreaming in projects is about using participatory approaches at all stages of the project and aims to ensure that strategies and actions for ending discrimination at all levels and stages of the project cycle are adopted, taking into consideration men's and women's needs, desires, and ambitions when decisions are made, and resources are allocated. The specific objectives of gender mainstreaming are the following:

- Women participate equally with men as decision-makers in rural institutions and in shaping laws, policies, and programs.
- Women and men have equal access to and control over decent employment and income, land, and other productive resources generated as the result of the OFLP projects.
- Women and men have equal access to goods and services for agricultural development and to markets as the result of the OFLP's interventions.
- Women's work burden is reduced at least by 30 percent through improved technologies, services; and infrastructure such as improved cookstoves, biogas, and piped water.
- At least 30 percent of rural land user women adopted sustainable land management practices as a result of the project after five years.

13. Programmatic components and activities of the OFLP as a program are designed to address the constraints to gender equality explored above:

(a) Capacity-building activities for community-based organizations and other institutions at different levels are expected to increase women's decision-making power and ultimately improve gender relations.

(b) In addition, the OFLP activities that promote natural forest protection through PFM, the development of plantation forests, the management of forest resources, the sustainable exploitation of timber and NTFPs, value addition to NTFPs, and marketing of forest coffee in high-value markets aim to address the interests and needs of both men and women.

(c) Finally, the social segment of the BSP is expected to have a greater focus on women.

14. To monitor progress on the gender responsiveness of these components, indicators have been disaggregated by gender for the OFLP to monitor the impact.

b. Risks

15. While the OFLP programmatic activities are all gender relevant, if they are implemented without adequate concern for gender responsiveness and addressing default to existing gender relations, the outcome of the program risks the further subordination of women. This is a key risk that the OFLP will need to monitor and carefully account for in program implementation.

Conclusions and Actions beyond the Program

16. While the program has been designed to help address constraints to gender equality, there are several opportunities and challenges to successfully implementing landscape management activities in a gender-responsive manner. Opportunities include a political environment that is conducive to gender mainstreaming, with the Government committed to implementing a climate-resilient green economic strategy.

17. To improve the political environment, the gender analysis undertaken for the OFLP made the following recommendations:

- The existing national women policy (1993), Oromia Rural Land Use and Administration Proclamation No. 130/2007, and Oromia Forest proclamation N0.72/2003 lack gender responsiveness and need to be revised.
- There is a need to initiate dialogue and organize consultation meetings at the national and subnational levels to discuss relevant gender issues and gaps in existing forest policies and practices.
- There is a need to engage civil society organizations, government institutions, and relevant women's networks to ensure inclusive approaches to the development and implementation of gender-responsive forest policies.
- There is a need to organize gender-awareness seminars and workshops for forestry officials, including decision-makers and policy committee members, to ensure a deeper understanding of the relevance of the concerns of women in forest policies and programs.
- The OFLP implementation unit, Oromia wildlife and forest bureau, other Oromia regional offices, district forest offices, NGOs, community forest management cooperatives, and other relevant agencies need to have an integrated plan, implementation schedules, and M&E mechanisms regarding gender equality and social inclusion-related activities.
- There is a need to work on capacity building for women. To this end, closely work with women who can be considered role models and champions in promoting gender equality.
- There is a need for investment in interventions that reduce workloads for women and reduce fuelwood consumption. To this end, there is a need to increase the incentive and distribution of improved cookstoves and biogas.

- The OFLP needs to implement the proposed gender training plans and gender action plans while following the gender mainstreaming guidelines.

Table 4.1. Gender Action Plan

Gender Gaps	Targeted Gender Activities Needed	Gender Output Indicators	Short-term Outcome Indicators	Long-term Outcome Indicators	Target 2030	Responsible Institutions	Implementation Year	Budget (US$)
The economically poor women are excluded from the community-based forest management groups. Villagers do not participate in investment in agroforestry actively.	The main activities needed are the following: • Awareness-raising campaigns on women's forest rights and project benefits including BSM • Gender-specific Forest management training • Inclusive and participatory community forest planning dialogues on the forest rights and benefits of the ER projects benefits.	• Number of awareness-raising campaigns on women's forest rights and BSM conducted • Number of forest management training provided • Number of dialogues conducted on the forest right and ER project benefits	Number (%) of women and specifically, the marginalized groups participate in community forest management groups	• Number (%) of women groups that possess the required knowledge for community forest management • Share of (%) forest area managed according to gender-informed management plans	30% of women in community management committee actively participate in community forest management decision-making process.	EFD, OFLP, and OEPA	Throughout the project life - continuous	500,000
Women's participation in the community forest is not more than 12% and less than 5% in the private sector forestry.	Catalyzing private sector investment in the forestry sector and its value chains. The main activities are the following: • Arrange credit (as part of the BSM) facilities for the private sector forestry. • Provide incentive structures for private investors in forestry.	• Credit facilities provided to private sector forestry • Incentive structure designed for private sector forestry	Number of (%) women, particularly from marginalized groups, have accessed capital, skills and networks to become successful entrepreneurs	Number (%) of private sector forestry projects implemented by women through improved access to finance and inputs.	30% of women participate in private sector forestry and 30% increase in number of women hired by receiving incentives provided by private sector forest entities	EFD, OFLP, and OEPA	Throughout the project life - continuous	600,000
Currently, about 91% of the households use firewood as sources of energy for cooking, very	As part of the BSP, incentive structure is provided for marginalized women to use biogas and improved cookstoves. Main activities are the following:	• Number of women groups organized • Number of training courses conducted • Number of credit facilities arranged for investment in	• Number of women groups who have accessed capital, skills, and networks to become	• Number of households shifted to alternative energy sources for cooking • Number of women,	• 30% increase in number of women who have installed and are	EFD, OFLP, and OEPA	Throughout the project life - continuous	656,000

Gender Gaps	Targeted Gender Activities Needed	Gender Output Indicators	Short-term Outcome Indicators	Long-term Outcome Indicators	Target 2030	Responsible Institutions	Implementation Year	Budget (US$)
few (less than 5%) of the households use improved cookstoves, and less than 4% use biogas for cooking.	• Organize women groups on construction of biogas and improved cookstoves. • Provide training on how to construct and use biogas and improved cookstoves. • Arrange credit facilities for marginalized women. • Promote rural electrification such as off-grid energy supply.	biogas and improved cookstoves • Number of new households with access to electricity	successful entrepreneurs in alternative energy sources such as biogas and improved cookstoves • Number of biogas and improved cookstoves constructed and traded	particularly from marginalized groups, have saved time, improved their health, and reduced fuelwood consumption through use of biogas and improved cookstoves	using biogas and improved cookstoves • 30% of women using biogas and improved cookstoves experience improved health and food security			
Intense issues of food insecurity for rural women	Promote livelihood diversifications based on the ER project activities. The activities are the following: • Organize women groups on income-generating activities such as animal fattening, petty trading, and local specific service provisions. • Provide gender-specific training on income-generating activities. • Support integrated land use planning and multistory cropping systems.	• Number of women groups organized on alternative income-generating activities • Number of training courses provided on gender-specific income-generating activities • Number of households trained in integrated land use planning and multistorey cropping systems	• Number of households participating in alternative income-generating activities • Number of households practicing integrated land use planning and multi-Storey cropping systems	Number (share) of food secure women, particularly of marginalized groups, and their families has improved.	• 30% increase in food security of households; • Increased participation of women in alternative income generation activities by 30%	EFD, OFLP, and OEPA	Throughout the project life - continuous	
No gender requirements associated with the establishment	The activities include the following: • Set criteria to include at least 30% women as	• Share (%) of women in community forest	Forest management plans endorsed by women's groups (no. %)	Share of forest area community management plans developed with	Village forest management committee guidelines developed by	EFD, OFLP, and OEPA	Throughout the project life - continuous	567,600

Gender Gaps	Targeted Gender Activities Needed	Gender Output Indicators	Short-term Outcome Indicators	Long-term Outcome Indicators	Target 2030	Responsible Institutions	Implementation Year	Budget (US$)
or operation of village forest management committees	members of any community forest management committee. • Set criteria to include at least 30% women in any community forest management committee.	project management • Share of community forest project management team that is female (%)		inclusive processes (ha)	the subproject; set standards of accessibility for women, with a quota of at least 30% female committee members.			
Women's participation in forest community planning, implementation, and M&E is very low.	Strengthen implementation practices to ensure female and male representation in planning, implementation, and monitoring activities. The required activities are the following: • Develop gender-sensitive information, education and communication materials and disseminate to guide implementation of gender dimensions of the project. • Conduct experience sharing between woredas, zones, or regions on best practices of gender mainstreaming and women empowerment. • Develop and disseminate sample gender-responsive reporting formats.	• Number of gender sensitive education and communication materials developed and disseminated • Number of women participated in experience sharing between woredas and zones • Number of gender responsive reporting formats developed and disseminated	• Number of projects designed with active participation of women • Gender monitoring system designed (yes/no) • Benefit-sharing mechanism with gender consideration in place (yes/no) • Number of projects successfully implemented with active participation of women	• Share of forest product output produced with women's group's active involvement (%) • Share of overall forest enterprise earnings going to female-led enterprises (%)	Women participation in the project activities reach at least 30%	EFD, OFLP, and OEPA	2023	

Gender Gaps	Targeted Gender Activities Needed	Gender Output Indicators	Short-term Outcome Indicators	Long-term Outcome Indicators	Target 2030	Responsible Institutions	Implementation Year	Budget (US$)
Lack of effective women's empowerment techniques at the project implementing woredas related to the local culture/norms	The following activities may help: • Provide targeted technical and leadership training to women involved in forestry and agroforestry activities. • Provide leadership training for women in forest-related associations. • Earmark funds for innovative communications efforts highlighting women's key role and best practices for forest landscape restoration. • Forest agency budget specifies target percentage of funds to training women in forest production and value-added activities.	• Ensure that women are signatories or co-signatories to forest-project related contracts (for example ecosystem payments, ecotourism, tree nurseries, (yes/no). • Have a quota system for women in management roles (yes/no). • Project activities include those that support women as role models to break through barriers, demonstrate by example, change mindsets, and provide inspiration to others (yes/no). • Project budget specifies target percentage to women-focused activities (yes/no).	• Forest sector plans, strategies, and policies incorporating gender considerations (%) • Women receiving training in leadership, negotiation, and business skills (number)	• Share of women project participants rating 'satisfied' or above on gender-related interventions (%) • Share of workers involved in forest production and value-added activities that are women (%)	Women's participation in the project activities reach at least 30%.	EFD, OFLP, and OEPA	Throughout the project period	
Women are systematically excluded from economic activities and benefit sharing.	The following activities may help enhance equal participation and sharing of benefits:	• Management information system with sex-disaggregated data designed (yes/no)	• Annual budget guidelines include gender considerations (yes/no)	• Share of those receiving direct benefits/income from project that are women (%)	Equal gender participation in economic activities and equitable	EFD, OFLP, and OEPA	2023	

Gender Gaps	Targeted Gender Activities Needed	Gender Output Indicators	Short-term Outcome Indicators	Long-term Outcome Indicators	Target 2030	Responsible Institutions	Implementation Year	Budget (US$)
	• Management information system with sex-disaggregated data • Dedicated women's fund for forest-related activities • Credit program targeted at female-led forest and agroforestry-related enterprises • Women and women's groups given access to forest enterprise-related credit (number).	• BSM with gender consideration in place (yes/no) • Share of women organized in forest-related associations (%) • Women and women's groups given access to forest enterprise-related credit (number)	• Women forest project beneficiaries being tracked (number) • Women's forest groups representatives in leadership positions in regional and national forest associations (number) • Share of total forest-related credit going to female-led enterprises (%)	• Share of project beneficiaries that are female (%) • Share of forest product output produced with women's group's active involvement (%) • Share of overall forest enterprise earnings going to female-led enterprises (%)	benefit sharing achieved			

Source: Oromia National Regional State Forested Landscape Program: Consultancy for Gender Analysis, and preparation of an Action Plan To Mainstream Gender in the Oromia Forested Landscape Program (2020)

Note: This action plan is developed based on the gender analysis findings report conducted in the OFLP grant implementing woredas during the program implementation period.

ANNEX 5: Tentative Disbursement Schedule for the Operation

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

Cash flow management		2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Purchase of Emission Reductions				**10,000,000**	**5,000,000**	**To be determined by the negotiations for the next phase**					**15,000,000**
Including	***Off the top payments to cover the program implementation (until the next carbon payment)***	-		***380,000***	***760,000***	*To be determined based on the design of the comprehensive MRV system*					***1,140,000***
	5% for the Federal level			***481,000***	***212,000***						***693,000***
	15% for the Oromia State			***1,443,000***	***636,000***						***2,079,000***
	5% for private sector related activities			***481,000***	***212,000***						***693,000***
	75% for community development projects			***7,215,000***	***3,180,000***	*To be defined based on the Comprehensive BSP arrangements*					***10,395,000***
	(of which 45% for Social Development and livelihood)			*3,246,750*	*1,431,000*						*4,677,750*
	(of which 50% for landscape management			*3,607,500*	*1,590,000*						*5,197,500*
	(of which 5% for vulnerable communities			*360,750*	*159,000*						*519,750*
Grant - Program management & MRV		**180,000**	**710,000**	**500,000**	**160,000**	**120,000**	**120,000**	**160,000**	**-**	**-**	**1,950,000**
Including	*Livestock MRV design and operating costs*	*180,000*	*320,000*	*100,000*	*100,000*	*100,000*	*100,000*	*100,000*	-	-	*1,000,000*
	Program Management (ORCU Staff)	*Covered by the ISFL Investment project*	*220,000*	*220,000*	-	-	-	-	-	-	*440,000*
	Fiduciary managment (staff, audit)		*20,000*	*20,000*	*60,000*	*20,000*	*20,000*	*60,000*			*200,000*
	Equipment		*10,000*	*20,000*	-	-	-	-	-	-	*30,000*
	Safeguards Supervision		*40,000*	*40,000*	-	-	-	-	-	-	*80,000*
	MRV activity monitoring cost		*35,000*	*35,000*	-	-	-	-	-	-	*70,000*
	operational cost		*65,000*	*65,000*	-	-	-	-	-	-	*130,000*

ANNEX 6: Road Map for Improving Data

COUNTRY: Ethiopia
Oromia Forested Landscape Program - Emission Reduction Project

Background

1. In accordance with the requirements of the ISFL, ER payments will only be made for eligible subcategories by estimating the baseline and monitoring the emissions and removals from these eligible subcategories. To be eligible, the baseline and the monitoring should use at minimum Intergovernmental Panel on Climate Change (IPCC) Tier 2 methods and data. In addition, the emissions baseline shall be constructed based on the average annual historical GHG emissions and removals over a historical period (baseline period) of approximately 10 years. If these requirements are not met for all relevant subcategories when the ERPA is signed, a plan is developed on how the methods and data can be improved with the aim of including these subcategories at a later phase during the term of the ERPA.

2. In the case of this project, the relevant subcategories have been identified in table 6.1. As can be seen, there are two subcategories where the requirements on data and methods (that is, the use of minimum IPCC Tier 2 data and methods) are not met. These subcategories are 'forestland remaining forestland' and 'enteric fermentation from cattle'. For each of these subcategories, specific activities have been planned to improve the methods and data with the aim of having sufficient quality data and methods available by the end of 2023. At that point, these subcategories can be included in the baseline and monitoring approach and ER payments could be made for these subcategories, if applicable.

Table 6.1. List of Eligible Subcategories per Sector and per Phase

Sector	Subcategory	% of Emissions	Requirements			Conclusion
			Emissions Baseline	Methods and Data	Spatial Information	
LULUCF	Forestland remaining forestland	34	Met	Not met	Met	Phase 2
LULUCF	Forestland converted to grassland	5	Met	Met	Met	Phase 1 and 2
LULUCF	Forestland converted to cropland	5	Met	Met	Met	Phase 1 and 2
LULUCF	Grassland converted to forestland	>1	Met	Met	Met	Phase 1 and 2
LULUCF	Cropland converted to forestland	>1	Met	Met	Met	Phase 1 and 2
Livestock	Enteric fermentation - cattle	17	Met	Not met	n.a.	Phase 2

Planned Improvements for Forestland Remaining Forestland

3. **The methods and data used for estimating the emissions under this subcategory.** There are no sound data on the extent of changes within the forest (such as logging or other activities that reduce the number of trees) and the emission factors associated with the changes are currently obtained from the Woody Biomass Inventory and Strategic Planning Project, which was a one-off inventory completed in 2004.

4. A plan to improve the data was therefore compiled with experts from the FAO, the US Forest Service (through the US Silva Carbon Program), and the GoE. The focus will be on improving data on the changes within the forest through the use of remote sensing techniques that apply advanced algorithms (such as BFast/LandTrendr/continuous change detection and classification (CCDC)/continuous degradation detection (CODED) to a time series of satellite images. These data will be combined with data from Ethiopia's most recent forest inventory and additional field measurements, if required, to improve the estimates for forestland remaining forestland.
5. The workplan and funding has been agreed between the FAO, the Norwegian Embassy in Ethiopia, and the US Silva Carbon Program with the aim of finalizing the work by the end of 2023.

Planned Improvements for Enteric Fermentation - Cattle

6. Different improvements were identified to ensure that the data and methods for estimating the emissions from enteric fermentation from cattle meet the ISFL requirements. Data gaps exist for three main areas:

- Cattle population and herd structure
- Animal performance
- Manure management systems (MMS).

7. Table 6.2 provides a detailed description of the data gaps within each of these three areas, how these gaps will be addressed, and which institution within Ethiopia/Oromia is responsible.

Table 6.2. Detailed Description of Data Gaps

Farming System	Data Gaps	How to Improve the Data and Data Collection Method	Responsible Institutions to Provide/Collect Data
Commercial dairy	• No complete survey of total population and herd structure available • Total population and herd structure estimated using various data sources and methods	• Survey or census-based estimates of total populations and herd structure or populations • Data acquisition protocol developed to collect data on number of animals (local breed and pure/exotic breed) and cattle herd	CSA has planned to include the annual survey of population and herd structure in commercial dairy system by 2022. The OFLP grant is financing a one-off detailed survey of population, herd structure, and animal performance.
Smallholder dairy	• Total population available from CSA but no herd structure data for cross-bred/exotic cattle • Herd structure from other data sources	• Annual data herd structure for crossbred/exotic cattle. Data acquisition protocol developed to collect data on number of animals (local breed and pure/exotic breed) and cattle herd.	CSA agreed to report herd structure separately for crossbred/exotic cattle annually.
Commercial feedlot	• No representative survey or census data • Population estimated using exports as a proxy	• Survey or census-based estimates of total feedlot populations • Data acquisition protocol developed to collect data on number of animals (local breed and pure/exotic breed), fattening cycle per year, typical weight at purchase, and desired weight at slaughter	CSA has planned to include the annual survey of population and herd structure in the commercial dairy system by 2022.
Mixed crop-livestock farming system	**Parameters:** Live weight of cows and oxen: live weight estimated using literature, no fully representative dataset available	• Representative survey on live weight through a one-off large survey. • The data acquisition protocol developed recommended that data on live weight could be estimated using heart girth measurement and/or body length measurement for both local and pure/exotic breeds.	The OFLP grant is financing a one-off detailed survey.
Mixed crop-livestock farming system	**Parameters:** Feed digestibility energy (DE%) for cows and oxen; DE% estimated using CSA diet composition data plus additional assumptions	• Survey of diet composition for cows and oxen. It is recommended to conduct a one-off large survey by CSA or any institution. • The data acquisition protocol developed can be used to collect diet composition and DE%.	The OFLP grant is financing a one-off detailed survey.
Commercial dairy system	**Parameters:** Milk yield - Milk yield estimated using one 2018 survey and interpolation of trend	• Annual data on commercial milk yields. It is recommended to conduct a one-off large survey by CSA. • The data acquisition protocol developed can be used to collect average milk yield per day from one lactating cows, lactation period, and calving interval. This question will be asked for indigenous and crossbred cattle separately.	CSA has planned to include the annual survey on milk yield from lactating cows in commercial dairy system by 2022.

Farming System	Data Gaps	How to Improve the Data and Data Collection Method	Responsible Institutions to Provide/Collect Data
Smallholder dairy system	**Parameters**: Milk yield; Milk yield estimated using one 2018 survey and interpolation of trend CSA does not report milk yield specific for crossbred/exotic cows	• Annual data on smallholder milk yields. Disaggregate CSA annual livestock survey will provide milk yield data for crossbred/exotic cows in smallholder dairy system. • The data acquisition protocol developed can be used to collect average milk yield per day from one lactating cow, lactation period, and calving interval. This question will be asked for indigenous and crossbred cattle separately.	CSA has planned to include the annual survey of population and herd structure in commercial dairy system by 2022.
Mixed crop-livestock	Lack of country-specific activity data on MMSs and manure characteristics (amount of manure produced and the portion of the manure that managed in the specific manure management system (MMS) The percentage of animal populations and MMSs in different productions needs to be determined so that more specific data such as Volatile Solids (VS), Methane Conversion Factor (MCF) can be used Better data are required on the proportion of manure managed in different MMSs.	• Representative sample surveys of manure management practices (manure characteristics, amount of manure produced, portion of manure managed in different MMSs, and other related data important for the Tier 2 Emission Factor (T 2EF) calculation should be done). • The data acquisition protocol developed can be used to collect data on animal manure management practices in the dry and wet seasons. Each household head will be asked about the proportion of different MMSs for each season.	The OFLP grant is financing a one-off detailed survey.
Commercial dairy	Same as above	• Representative sample surveys of manure management practices (manure characteristics, amount of manure produced, portion of manure managed in different MMSs, and other related data important for the T2EF calculation should be done). • The data acquisition protocol developed can be used to collect data on animal manure management practices in the dry and wet seasons. Each household head will be asked about the proportion of different MMSs for each season.	The OFLP grant is financing a one-off detailed survey.
Smallholder dairy	Same as above	• Representative sample surveys of manure management practices (manure characteristics, amount of manure produced, portion of manure managed in different MMSs, and other related data important for the T2EF calculation should be done). • The data acquisition protocol developed by UNIQUE can be used to collect data on animal manure management practices in the dry and wet seasons. Each household head will be asked about the proportion of different MMSs for each season.	The OFLP grant is financing a one-off detailed survey.

Farming System	Data Gaps	How to Improve the Data and Data Collection Method	Responsible Institutions to Provide/Collect Data
Smallholder and commercial feedlots	Same as above	• Representative sample surveys of manure management practices (manure characteristics, amount manure produced, portion of manure managed in different MMSs and other related data important for the T2EF calculation should be done). • The data acquisition protocol developed can be used to collect data on animal manure management practices in the dry and wet seasons. Each household head will be asked about the proportion of different MMSs for each season.	The OFLP grant is financing a one-off detailed survey.

ANNEX 7: Economic and Financial Analysis (EFA)

Background

1. Project Development Objective (PDO): The project will generate measured, reported and verified Emissions Reductions (ER) from reduced deforestation, forest degradation, enhancement of forest carbon stocks (REDD+), Agriculture and other Land Use Sectors that meet the GHG accounting requirements of the BioCF ISFL in the Oromia State and to distribute ER payments in accordance with an agreed benefit sharing plan.

2. The main component distributes Emission Reduction (ER) payments in accordance with the agreed Benefit Sharing Plan, BSP, (US$60 million). A second component provides for a comprehensive Measurement, Reporting and Verification (MRV) system and program management including Safeguards Management system (US$1.95 million). The BSP is divided into two units of ERs: contract ERs and option ERs. This EFA includes only the contract ERs in the first phase (3 years) covering US$15 million of the total US$60 million plus the first phase of the second component.

3. The project is jurisdictional in that there are several underlying investment projects that have contributed to reduced GHG emissions – some only in Oromia and some in multiple regions. Their contributions lie both in the past and will continue in future years. Each of those projects have undertaken their own EFAs with positive returns on investment. However, in the current analysis it has not been possible to combine all those analyses with the time and resources available. Instead, the underlying projects are combined in one methodology.

Methodology

4. In the current analysis, the EFA methodology from the OFLP-Grant Project Appraisal Document (World Bank, 2017a, PAD) is used to combine the costs and benefits from different projects according to their different start times, interventions, and geographical coverage beyond Oromia. The benefit streams considered are those included in the OFLP-Grant PAD shown in Table 1.

5. **The benefit streams that are quantified** in this EFA are: Increased adoption of Participatory Forest Management (PFM) including some livelihood activities; Newly established woodlots and capacity to adopt afforestation and reforestation (AR) technologies; Improved productivity through higher yields, reduced losses, and more sustainable agricultural and land management practices; Reduced Greenhouse Gas (GHG) emissions and enhanced carbon stocks in landscapes due to reduced deforestation and changed land management practices. Some benefits are quantified by the direct transfer of funds through the BSP to social development, livelihoods, and vulnerable populations for example maintenance of schools, clinics, and roads.

6. **The benefit streams that are not quantified** in this EFA are: Improved forest cover, water flow/quality, habitat for wildlife, biodiversity, ecosystem services, and enhanced habitat connectivity from more sustainable forest and land management practices; Enhanced biodiversity in agricultural landscapes; Higher social capital and empowered communities, including for women; and Less conflict and waste due to improved institutional norms, clarified rules and procedures.

Table 1: Categories of Benefits by this and Underlying projects.

Project Interventions	Benefits	Beneficiaries	Quantified/ Estimated?
1. More sustainable forest and land management practices, reduced forest degradation, and reduced encroachment	Greater forest cover, habitat for wildlife and biodiversity (on site) Enhanced habitat connectivity and ecosystem services (beyond site)	Ethiopia and Global	No
	Increased adoption of Participatory Forest Management (PFM) for improved landscapes, watersheds, environmental services, and some livelihood activities	Communities	Partial
	Improved livelihoods from woodlots and capacity to adopt afforestation and reforestation technologies	Communities and landowners	Yes
	Reduced emissions and enhanced carbon stocks in agricultural and forest landscapes from reduced deforestation and improved land management	Global	Yes
2. More sustainable agricultural and land management practices	Higher yields, reduced losses, better returns from land for farmers and landowners	Communities and landowners	Yes
	Reduced emissions and enhanced carbon stocks in landscapes from reduced deforestation and improved land management	Global	Yes
	Enhanced biodiversity in agricultural landscapes	Ethiopia and Global	No
3. Strengthened community-level institutions	Higher social capital and empowered communities, including for women	Communities	Partial
4. Access to new skills and markets; opportunities for revenue generation and job creation	Employment, earnings	Communities	Partial
5. Improved institutional norms, clarified rules and procedures	Less conflict over application of rules Less waste on bureaucratic procedures, more investment	Farmers and landowners	No

Source: Based on Table 11.1 in Ethiopia Oromia National Regional State Forested Landscape Project. Project Appraisal Document. Report No. PAD1634. March 16, 2017.

7. **Direct beneficiaries are included.** Direct beneficiaries include those who receive ER Payments and communities, landowners, and farmers that receive monetary and non-monetary support, such as training and extension services, through underlying investment projects. These are included in the results frameworks and are monitored and reported throughout project implementation. Direct beneficiaries are quantified in this EFA.

8. **Indirect beneficiaries are excluded.** Indirect beneficiaries include downstream water users such as water utilities, irrigation schemes and hydropower facilities that will benefit from improved protection

of watershed services. This includes improving waterflow and water quality but also minimizing cost of erosion, siltation, and sedimentation at such facilities. Ethiopia's natural forests support high levels of biodiversity and endemism, and these attract a significant number of nature-based tourists that contribute to local economies through spending for accommodation and guiding services. Tourism operators and local communities are therefore also anticipated to be indirect beneficiaries, providing they can fund necessary infrastructure investments and cover operating costs. Indirect beneficiaries may also reside in neighboring communities due to informal dissemination outside the project areas. Indirect beneficiaries are not quantified in this EFA.

9. **Multiplier effects are excluded.** Multiplier effects are also anticipated along value chains through the BSP as well as from interventions in underlying projects. For example, increased production from cooperatives and smallholder farmers will benefit traders, merchants, and value addition enterprises, providing these have capacity and can obtain financing for investment- and operating costs. While it is important to acknowledge indirect beneficiaries and potential multiplier effects, it is difficult to identify and monitor them both inside and outside the project areas as well as during and after project implementation. Multiplier effects are not quantified in this EFA.

10. **Opportunity costs and resilience in the face of disasters are excluded.** While the estimated incremental benefits discussed further below consider the without-project household income as a baseline (counterfactual), this analysis does not explicitly include opportunity costs of project interventions. Implicitly it is assumed that the incremental increase in income is net of any increased costs required to capture this higher income. A more detailed model of household income would be required for example by modelling farm level revenue, costs, and gross margins with- and without-project. Other opportunity costs could also include a loss of household income in the absence of project interventions – for example because of soil erosion, forest loss, reduced water flow, and poor land/forest management practices. To incorporate this, the analysis would need to include a without-project household income that decreases over time. Furthermore, to quantify improved household resilience due to project interventions, the analysis could be improved by quantifying income losses after occasional disasters such as floods and droughts.

11. **Amounts paid to beneficiaries through the BSP is both compensation for improved practices under past projects (OFLP-Grant and RLLP 1) and to encourage improved practices in the future.** As summarized in Table 2, the ER payment, less operating costs and 3% performance buffer, is included as a benefit from OFLP-Grant and RLLP 1 interventions. It is also assumed that the ER payments are reinvested to improve future practices. Incremental benefits are estimated for direct beneficiaries in landscape management, private sector, and PFM and livelihoods. No incremental benefits are estimated for social development and livelihood projects nor for transfers to vulnerable communities. Instead, these amounts are added back into the cash flow as a direct transfer (benefit) to communities for projects such as maintenance of schools, clinics, and roads.

Table 2: Treatment of OFLP-ERP Budget in EFA Cash Flow

OFLP-ERP Budget Components	OFLP-Grant/RLLP 1	OFLP-ERP
Operating costs and 3% performance buffer	-	Deduct as cost
5% of net ER Payment for the Federal level	Add as benefit	Deduct as cost
15% of net ER Payment for the Oromia State	Add as benefit	Deduct as cost
5% of net ER Payment for private sector related activities	Add as benefit	Deduct as cost & estimate benefit
75% of net ER Payment for community development projects		
of which:		
45% for Social Development and livelihood	Add as benefit	Deduct as cost & add as benefit
50% for landscape management	Add as benefit	Deduct as cost & estimate benefit
5% for vulnerable communities	Add as benefit	Deduct as cost & add as benefit
Grant for program management and MRV	-	Deduct as cost

Note: OFLP-ERP costs at Federal and Oromia State levels together with operating costs, performance buffer, and grant are considered necessary to generate the benefits captured by communities and landowners.

12. **Costs and benefits are expressed in 2017 US$ amounts.** In this methodology, where projects with different implementation years are combined, it is important to refer to the same base year. Therefore, all currency amounts are converted to 2017 amounts using a GDP deflator for Ethiopia (World Development Indicators database, accessed Aug 18, 2022). For example, 2018 amounts are converted using a factor 0.89, and 2022 amounts are converted with factor 0.45.

13. **Project investment costs are included for three projects (see Table 3).** In this analysis, OFLP-ERP costs extend to 2025 by including only Phase 1 of US$61.95 million (2022 amount). Note that, Phase 1 focuses on land use change while Phase 2 includes livestock and forest degradation.[46] In line with the approach in the EFA for RLLP 1, 33% of costs for landscape development activities are added to include in-kind community labor contribution. In OFLP-ERP 20% of 5% of the ER payment going to private sector, are added for the required matching grant portion. In Table 3 the amounts are shown in current and 2017 US$ million. OFLP-ERP is converted from 2022 amounts, RLLP 1 is converted from 2018 amounts, and OFLP-Grant remains as original 2017 amounts. With respect to RLLP 1 it is assumed that 22% of project costs can be attributed to Oromia (equivalent to Oromia share of total project area).

[46] When Phase 2 is included, more underlying projects should be added to the analysis such as: RLLP 2 (P174385), LLRP (P164336), LFSDP (P159382), CALM (P170384), BALE II FSD, REDD+ Investment Project (RIP), Green Legacy Initiative, and PSNP (P163438).

Table 3: Included Project Costs

Project and Year	Costs, Current US$ million	In-Kind Contributions + Matching Grant, Current US$ million	Oromia State Share	Costs, 2017 US$ million
OFLP-ERP (P151294), 2022	16.6	1.9	100%	8.3
OFLP-Grant (P156475), 2017	18.0	2.3	100%	20.3
RLLP 1 (P163383 +P172462), 2018	114.7	21.7	22%	26.8
Total	-	-		55.4

Note: OFLP-ERP costs include only Phase 1 of US$61.95 million in 2022 amounts. 33% of landscape development activities added for in-kind labor community contributions. In OFLP-ERP 20% of the 5% of the ER payment going to private sector are added for the required matching grant portion. RLLP 1 watersheds in Oromia cover 114,978 ha of 519,900 ha total (22%).

14. **Actual and projected direct beneficiaries.** As summarized in Table 4, data are obtained from original PADs, Implementation Supervision Reports (ISRs) and other project documents. OFLP-Grant and RLLP 1 assumptions include actual number of beneficiaries and hectares as per 2021 noted in their ISRs. From 2022 onwards annual number of beneficiaries and hectares are estimated based on the original schedule in their respective PADs. Achievements in some indicators have been higher than targeted. Both the OFLP-Grant and current project only relate to Oromia. For RLLP 1 it is assumed that 22% of beneficiaries, and beneficiary area can be attributed to Oromia. Except for ER payments being provided to direct beneficiaries regardless of whether they have received benefits in other projects, it is assumed that there is very little overlap of beneficiaries between the underlying projects, OFLP-Grant and RLLP1. The overlap is only in 18 woredas or watersheds where both OFLP-Grant and RLLP 1 are implementing. However, the OFLP-Grant implements afforestation and reforestation activities, whereas the RLLP 1 primarily implements physical soil and water conservation activities. The activities are therefore considered complementary.

15. **Incremental benefits per household and per hectare.** The benefit estimate amounts per household (HH) and per hectare (ha) are from the original OFLP-Grant PAD (World Bank, 2017a). These dollar-amounts are used to estimate incremental benefit flows for productivity increases and reduced losses on agricultural land, woodlot earnings in planted forests, and increased production/sales from forest management and livelihoods. The incremental benefit flow is the difference between household or per-hectare income without project and with project. The estimated incremental benefits ranging from US$3/ha to US$78/HH are conservative when assuming an average rural household income of US$720/HH/year with 4 adult-equivalents. This baseline is also conservative compared to Ethiopia's 2017 Gross National Income of US$724/person/year. It is assumed that some beneficiaries will achieve higher incremental benefits while others achieve less.[47]

[47] The EFA for RLLP 1 (P163383 +P172462) estimated impact on per hectare revenue and costs (gross margin) for different categories: cropland, non-cropland, and livestock production. The two analysis approaches and results are not directly comparable and there was not sufficient time available to reconcile the two.

Table 4: Included Project Indicators and Benefit Flow Assumptions

	Productivity increase and reduced losses	Afforestation and Reforestation	Participatory Forest Management and Livelihoods	ER Payments	GHG Emissions
OFLP-ERP (P151294)	10,000: Number of smallholder farmers in private sector schemes adopting improved agricultural practices (Number)	-	290,000 ha: Average 11.6 ha/person for 25,000 people involved in registered cooperatives receiving benefits from the ER Program (Number)	From contract ER payment: US$15 million, less expenses and 3% performance buffer in 2022 amounts = US$6.2 million in 2017 amounts	Financial Analysis: Phase 1 contract ER for: 1.8 million tCO2e Total contract and option ER for: 7.2 million tCO2e
OFLP-Grant (P156475)	54,448: Land users adopting sustainable land mgt. practices as a result of the project (Number)	10,327 ha: Area reforested	123,455 ha: Forest brought under management plans		Phase 1 Reduced Emissions: 26.9 million tCO2e
RLLP 1 (P163383 +P172462)	22% of 506,000: Land users adopting sustainable land management practices as a result of the project, (Number)	22% of 70,079 ha: Land area restored or reforested/ afforested	-		Phase 1 Reduced Emissions: 22% of 965,000 tCO2e
Benefit Estimate	US$78/HH: 2 * 5.4% income increase in productivity and reduced losses WO/P: US$720/HH	US$19/ha: 10% increase in forest earnings from low end fuel wood activity WO/P: US$192/ha	US$3/ha: 4% increase in production/sales from forests livelihoods WO/P: US$80/ha	US$2.3 million: 50% of 75% of ER Payment for direct transfer to social development and livelihood projects, vulnerable communities	Economic Analysis: Average OFLP-ERP: US$3.7/tCO2e Low Social Value: US$37/tCO2e High Social Value: US$75/tCO2e

Note: HH = Household. WO/P = Without Project. 2017 US$ amounts. Average area per person in a registered forest cooperative is based on current cooperatives that manage 1.8 million ha and have 155,000 members. Sources: Project documents including PADs and ISRs.

16. **Costs and incremental benefits per number of direct beneficiaries and hectares in Table 4 are used to estimate an annual cash flow for all projects combined. The cost benefit analysis is performed over a 20-year period.** The financial discount rate is 12% to reflect the opportunity cost of capital in

Ethiopia. For the economic analysis, the annual discount rate is set to 7%. This is to reflect the per capita growth in GDP in Ethiopia, which has ranged between 3% and 4% over the last 2 years. Different discount rates are included in the sensitivity analysis. [48]

17. **The financial analysis is expanded to an economic analysis with three price levels to estimate Social Value of Carbon.** The financial analysis methodology described above includes the ER Payment because it monetizes reduced GHG emissions and is transferred to direct beneficiaries. To perform an economic analysis, global benefits from reduced GHG emissions are estimated. The social value of carbon is included with three different price levels: The low US$37/tCO2e and high US$75/tCO2e estimates of social value of carbon for 2017 are increased annually by 2.25% as prescribed in World Bank guidelines (World Bank, 2017b, 2022b). An alternative shadow price of carbon closer to a real market price is calculated as the weighted average of 35% of US$7/tCO2e and 65% of US$9/tCO2e, respectively from Modality 1 (GoE retains the ERC for use against NDC) and Modality 2 (buyer retains the ERC). In 2022 amounts the weighted average is US$8.3/tCO2e, which adjusts to US$3.7 in 2017 amounts.

Financial Analysis Results

18. **The financial analysis shows a positive return on investment from the three projects combined, with an estimated NPV of US$37 million, a BCR of 2.2 and an IRR of 33%.** As shown in Table 5, the Internal Rate of Return (IRR) is higher than the 12% discount rate, which leads to a positive Net Present Value (NPV) and a Benefit Cost Ratio (BCR) larger than 1. The additional value provided by the ER payment is US$2.4 million in 2017 amounts or US$5.4 in 2022 amounts. This is 14% of the Government's US$40 million ERPA commitment. Without discounting the ER payment amount, it constitutes 35% of the commitment. Figure 1 shows the annual cost and benefits flows for the three projects combined.

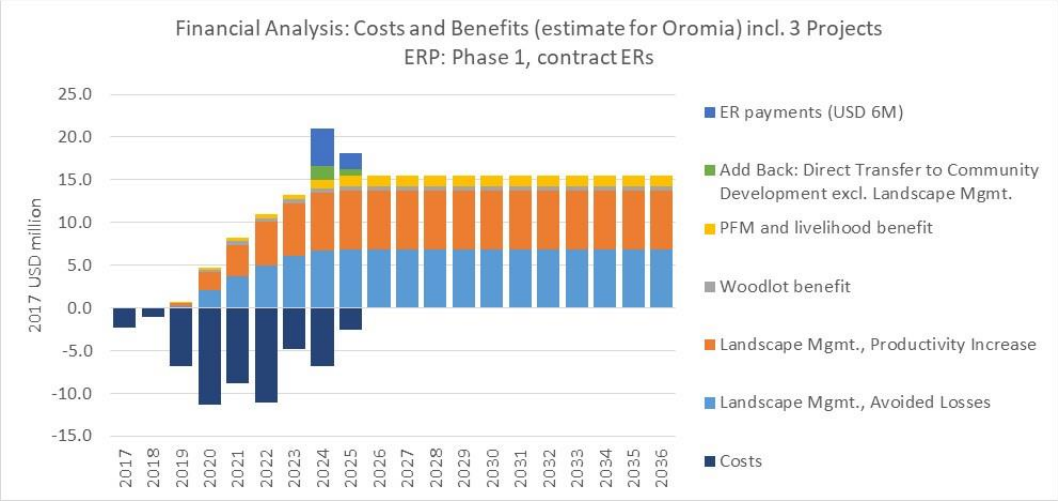
Table 5: Financial Analysis. Key Indicators

Key Indicators	w/ER Payment		wo/ER Payment	
	2017 US$ million	2022 US$ million	2017 US$ million	2022 US$ million
Sum ER Payment	6.2	13.9		
Share of Government ERPA commitment	16%	35%		
NPV ER Payment	2.4	5.4		
Share of Government ERPA commitment	6%	14%		
NPV Benefits	67.9	151.1	65.5	145.7
NPV Costs	-31.3	-69.6	-31.3	-69.6
NPV Net Benefits	36.7	81.6	34.2	76.1
BCR	2.2		2.1	
IRR	33%		32%	
Payback Year	7.6		7.8	

Note: NPV @ 12%, 20 years, 2017 US$ million. Included Projects: OFLP-ERP (P151294), OFLP-Grant (P156475), RLLP 1 (P163383+P172462). OFLP-ERP contract ERs in Phase 1. Government commitment ERPA = US$40 million in 2022 amounts.

[48] According to World Bank guidelines, a 3% per capita growth rate translates into a 6% discount rate, and per capita growth rates of 1%-5% yield discount rates of 2%-10%. World Bank (2016). Discounting Costs and Benefits in Economic Analysis of World Bank Projects. Washington, DC.

Figure 1: Financial Analysis. Annual Cost and Benefit Flow



Note: Included Projects: OFLP-ERP (P151294), OFLP-Grant (P156475), RLLP 1 (P163383+P172462). OFLP-ERP contract ERs in Phase 1.

19. **Economic Analysis Results**

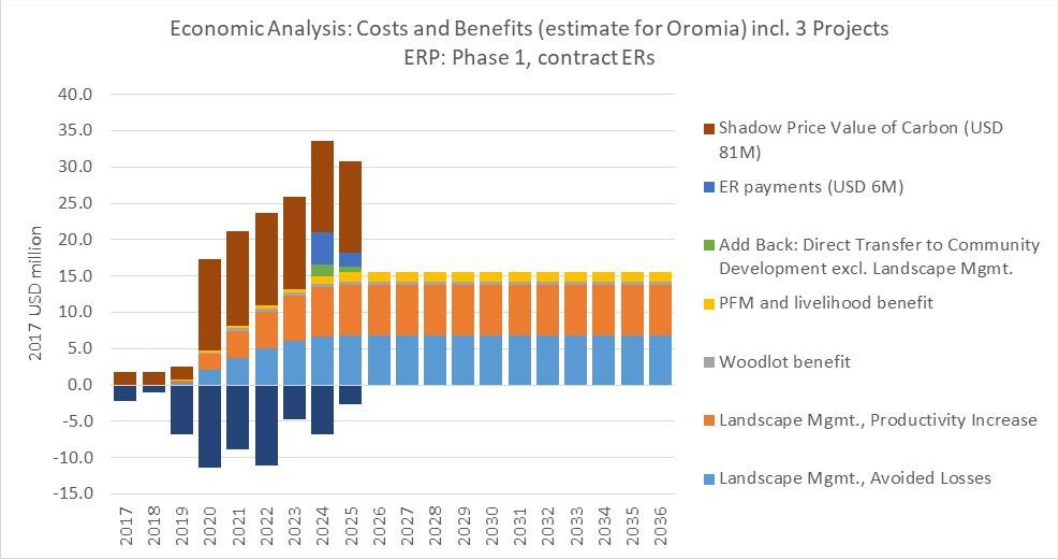
20. **The economic analysis without social value of carbon shows a positive return on investment from the three projects combined, with an estimated NPV of US$72 million, a BCR of 2.8 and an IRR of 33%. Depending on the assumed price, social value of carbon can add between US$54 million and US$1.3 billion.** As shown in Table 5, the IRR is higher than the 7% discount rate, which leads to a positive NPV and a BCR larger than 1. The additional value provided by the ER payment is US$3.6 million in 2017 amounts. In 2022 amounts, this is 20% of the Government's US$40 million ERPA commitment. Using the weighted average of the prices per tCO2e in the ER Payment, the social value of carbon is estimated at US$54 million in 2017 amounts. Using World Bank low and high price points, generates social value of carbon between US$655 million and US$1.3 billion for the underlying reductions in GHG emissions. This only includes reduced GHG emissions during each project's implementation period and excludes emission reductions in future years. Figure 1 shows the annual cost and benefits flows with the lowest price point for social value of carbon with three projects combined.

21. **Table 6: Economic Analysis. Key Indicators**

Key Indicators	w/ER Payment		w/ER Payment and Shadow Price VC		w/ER Payment and Low SVC		w/ER Payment and High SVC	
	2017 US$ million	2022 US$ million	2017 US$ million	2022 US$ million	2017 US$ million	2022 US$ million	2017 US$ million	2022 US$ million
NPV ER Payment	3.6	7.9						
Share of ERPA Government	9%	20%						
NPV Social Value of Carbon			54.1	120.3	655.1	1,457.1	1,332.1	2,963.0
NPV Benefits	111.0	246.8	165.0	367.1	766.0	1,703.9	1,443.0	3,209.8
NPV Costs	-39.1	-87.1	-39.1	-87.1	-39.1	-87.1	-39.1	-87.1
NPV Net Benefits	71.8	159.8	125.9	280.0	726.9	1,616.9	1,403.9	3,122.7
BCR	2.8		4.2		19.6		36.9	
IRR	33%		162%		-		-	
Payback Year	7.6		1.6		0.0		0.0	

Note: NPV @ 7%, 20 years, 2017 US$ million. Included Projects: OFLP-ERP (P151294), OFLP-Grant (P156475), RLLP 1 (P163383+P172462). OFLP-ERP contract ERs in Phase 1. Government commitment ERPA = US$40 million.

Figure 2: Economic Analysis. Annual Cost and Benefit Flow



Note: Included Projects: OFLP-ERP (P151294), OFLP-Grant (P156475), RLLP 1 (P163383+P172462). OFLP-ERP contract ERs in Phase 1.

22. **Sensitivity Analysis**

23. **Project returns are sensitive to the assumed incremental increase in household income and number of beneficiary households, but it is unlikely to fall below the current conservative estimate of US$79/HH/year if efforts in improved landscape management continue.** Other than the social value of carbon, most of the estimated benefits are from improved landscape management (productivity increase

and avoided losses). If the household income increases by only 2-times 1.3% or US$19/HH/year, the estimated NPV of incremental benefits turns zero. It is unlikely that the project will only generate such small incremental benefits. The base case estimate of US$78/HH/year increase is already considered conservative. If the number of OFLP-ERP beneficiary households with improved landscape management in the ER project falls by 40% to 6,000 and incomes only increase by 2-times 4% (US$58/HH/year), the IRR falls from 33% to 25%. The project remains viable with a BCR of 2.2. Conversely, increases in incremental benefits or number of beneficiaries will improve project returns.

24. **Increasing the economic discount rate from 7% to 12% reduces the estimated NPV by 49% to US$37 million.** The economic discount rate is 7% based on current 3-4% per capita growth in GDP. In 2017, the per capita growth in GDP was 6.7% suggesting a discount rate of 12%. With a 12% discount rate the estimated NPV is US$37 million compared to the base case US$72 million.

25. **Increasing the unit price of emission reduction and number of beneficiaries by 34% leads to a 4% increase in NPV to US$75 million. In 2022 amounts, the ER payment constitutes 27% of the Government's US$40 million ERPA commitment.** A study of offsets paid for different GHG emission attributes found an average price of US$5/tCO2e (Hamrick and Grant, 2017). By increasing the assumed prices from US$7 and US$9/tCO2e in 2022 amounts by 34% to US$9 and US$12/tCO2e, the weighted average 2017 price is US$5/tCO2e. By assuming that this higher price was paid in 2017 amounts, the ER payment and the number of OFLP-ERP beneficiaries and hectares are increased by the same percent. This leads to a 4% increase in NPV to US$75 million while BCR, and IRR do not change much. In 2022 amounts, the ER payment increases from 20% to 27% of the Government's US$40 million ERPA commitment.

26. **By including option ERs in addition to contract ERs in Phase 1, the NPV of the ER payment constitutes 27% of the Government's US$40 million ERPA commitment. In 2017 amounts NPV increases by 4% to US$75 million.** In the base case only contract ERs in Phase 1 are included. By also including the option ERs for Phase 1, the payment amount increases from US$15 million to US$20 million. For this estimate the number of OFLP-ERP beneficiary households and hectares are increased by a factor of 20/15. The NPV increases by 4% from US$72 million to US$75 million, the BCR and IRR do not change much. In 2022 amounts, the net present value of the ER payment increases from 20% to 27% of the Government's US$40 million ERPA commitment.

27. **By including both contract and option ERs in both Phase 1 and 2, the NPV of the ER payment constitutes 67% of the Government's US$40 million ERPA commitment. In 2017 amounts, NPV increases by 24% to US$89 million.** In the base case only contract ERs in Phase 1 are included. By also including contract and option ERs in both Phase 1 and 2, the payment amount increases from US$15 million to US$60 million. For this estimate, the number of OFLP-ERP beneficiary households and hectares are increased by a factor of 60/15. No other underlying projects are added to the current three projects. In 2017 amounts, the NPV increases by 24% from US$72 million to US$89 million, the BCR remains at 2.8 and the IRR increases from 33% to 35%. The NPV of the ER payment in 2022 amounts increases from 20% to 67% of the Government's $40 million ERPA commitment.

28. **Conclusion**

29. Both the economic and financial analyses show robust returns on investment. The economic analysis without social value of carbon shows a positive return on investment from the three projects combined, with an estimated NPV of US$72 million in 2017 amounts, a BCR of 2.8 and an IRR of 33%. Depending on the assumed price, social value of carbon can add between US$54 million and US$1.3

billion. In 2022 amounts, the net present value of the ER payment is 20% of the Government's US$40 million ERPA commitment.

30. Other than social value of carbon, most of the estimated benefits are from improved landscape management (productivity increases and avoided losses). Project returns are therefore sensitive to the assumed incremental increase in household income and number of beneficiary households, but it is unlikely to fall below the current conservative estimate of US$79/HH/year – providing efforts in improved landscape management continue. If the ER payments increase either due to higher unit prices of from also selling option ERs, the number of beneficiary households and hectares will increase. A 4% increase in project returns can be achieved with a 34% increase in unit prices or ER payment. By including both contract and option ERs in both Phase 1 and 2, in 2017 amounts the NPV increases by 24% to US$89 million. In 2022 amounts, the NPV of the ER payment constitutes 67% of the Government's US$40 million ERPA commitment. However, more data about other underlying projects are needed to fully value Phase 2 focus on livestock and forest degradation.

31. The EFA Excel model is ready to include more underlying projects when Phase 2 is analyzed. While the model structure is ready, more data are needed from PADs and ISRs for the following projects: RLLP 2 (P174385), LLRP (P164336), LFSDP (P159382), CALM (P170384), BALE II FSD, REDD+ Investment Project (RIP), Green Legacy Initiative, and PSNP (P163438). The benefit estimates in USD/HH and USD/ha should also be reassessed to focus on the different nature of some of these projects compared to OFLP-Grant and RLLP 1.

References

BioCarbon Fund. 2019. Oromia Forested Landscape Program (OFLP). ISFL Emission Reductions (ER) Program Document (PD). Draft Dec 4, 2019.
Hamrick, K. and M. Grant. 2017. Unlocking Potential State of the Voluntary Carbon Markets. Forest Trends, Ecosystem Marketplace. Washington, D.C. 44 p.
World Bank. 2016. Technical note on discounting costs and benefits in economic analysis of World Bank projects. Washington, DC.
World Bank. 2017a. Ethiopia Oromia National Regional State Forested Landscape Project. Project Appraisal Document. Report No. PAD1634. March 16, 2017.
World Bank. 2017b. Shadow price of carbon in economic analysis. Guidance note to the World Bank Group staff. Washington, DC, Nov 12.
World Bank. 2018. Ethiopia Resilient Landscapes and Livelihoods Project (RLLP). Project Appraisal Document. PAD2484. July 9, 2018.
World Bank. 2019. Ethiopia Oromia National Regional State Forested Landscape Program (Project ID P151294). Benefit Sharing Plan for Disbursing Result Based Payments from BioCF ISFL Program. Aug 5, 2019.
World Bank. 2022a. Oromia Forested Landscape Program – Emission Reduction Project. Draft Project Appraisal Document. Report PAD 1209. Aug 25, 2022.
World Bank. 2022b. FY23 Greenhouse Gas Accounting Template with Information and Reporting Check and Shadow Price of Carbon by Year. Excel file: FY23 GHG QA Template.xlsx