Meeting of the Board
18 – 21 August 2020
Virtual meeting
Provisional agenda item 11

GCF/B.26/02/Add.08

28 July 2020

Consideration of funding proposals - Addendum VIII

Funding proposal package for FP136

Summary

This addendum contains the following seven parts:

a) A funding proposal titled "Resilient Landscapes and Livelihoods Project";
b) No-objection letter issued by the national designated authority(ies) or focal point(s);
c) Environmental and social report(s) disclosure;
d) Secretariat's assessment;
e) Independent Technical Advisory Panel's assessment;
f) Response from the accredited entity to the independent Technical Advisory Panel's assessment; and
g) Gender documentation.

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Funding Proposal

Project/Programme title:	Resilient Landscapes and Livelihoods Project
Country(ies):	Ethiopia
Accredited Entity:	World Bank
Date of first submission:	2018/06/22
Date of current submission	2020/03/19
Version number	*[V.000]*

GREEN CLIMATE FUND

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Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the GCF Information Disclosure Policy, project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

"FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]"

A. PROJECT/PROGRAMME SUMMARY

A.1. Project or programme	Project	**A.2. Public or private sector**	Public
A.3. Request for Proposals (RFP)	*If the funding proposal is being submitted in response to a specific GCF Request for Proposals, indicate which RFP it is targeted for. Please note that there is a separate template for the Simplified Approval Process and REDD+.* Not applicable		
A.4. Result area(s)	*Check the applicable GCF result area(s) that the overall proposed project/programme targets. For each checked result area(s), indicate the estimated percentage of GCF budget devoted to it. The total of the percentages when summed should be 100%.*		

Mitigation: Reduced emissions from:	GCF contribution:
☐ Energy access and power generation:	Enter number%
☐ Low-emission transport:	Enter number%
☐ Buildings, cities, industries and appliances:	Enter number%
☒ Forestry and land use:	100%
Adaptation: Increased resilience of:	
☒ Most vulnerable people, communities and regions:	70%
☒ Health and well-being, and food and water security:	30%
☐ Infrastructure and built environment:	Enter number%
☐ Ecosystem and ecosystem services:	Enter number%

A.5. Expected mitigation impact	*5,621,615 t CO2 eq over 5 years* *43,800,000 t CO2 eq over 25 years*	**A.6. Expected adaptation impact**	Direct beneficiaries: 834,000 Households (4.2 million people) facing food, land tenure and water insecurity in climate vulnerable rural watersheds Indirect beneficiaries: Total population of the targeted area – close to 26,200,000 people. Direct: 4.0% Indirect: 25.0%
A.7. Total financing (GCF + co-finance)	296,237,602 USD	**A.9. Project size**	Large (Over USD 250 million)
A.8. Total GCF funding requested	165,237,592 USD Choose an item. *For multi-country proposals, please fill out annex 17.*		

A.10. Financial instrument(s) requested for the GCF funding	*Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.*			
	☒ Grant	58,063,337 USD	☐ Equity	Enter number
	☒ Loan	107,174,255 USD	☐ Results-based payment	Enter number
	☐ Guarantee	Enter number		

A.11. Implementation period	Start: 07-Oct-2020; End: 07-Oct-2025	**A.12. Total lifespan**	25 years

A.13. Expected date of AE internal approval	*This is the date that the Accredited Entity obtained/will obtain its own approval to implement the project/ programme, if available.* 6/15/2020	**A.14. ESS category**	*Refer to the AE's safeguard policy and GCF ESS Standards to assess your FP category.* B
A.15. Has this FP been submitted as a CN before?	Yes ☒ No ☐	**A.16. Has Readiness or PPF support been used to prepare this FP?**	Yes ☐ No ☒
A.17. Is this FP included in the entity work programme?	Yes ☐ No ☐	**A.18. Is this FP included in the country programme?**	Yes ☐ No ☐
A.19. Complementarity and coherence	*Does the project/programme complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1.* Yes ☐ No ☒		
A.20. Executing Entity information	*If not the Accredited Entity, please indicate the full legal name of the Executing Entity(ies) and provide its country of registration and ownership type. Note that there can be more than one Executing Entity. Also indicate if an Executing Entity is the National Designated Authority. Refer to the definition of Executing Entity in the Accreditation Master Agreement.* The Federal Democratic Republic of Ethiopia, represented by the Ministry of Finance and acting through the Ministry of Agriculture.		
A.21. Executive summary (max. 750 words, approximately 1.5 pages)			

Provide an executive summary of the project/programme including:

1. *Climate change problem*
2. *Proposed interventions*
3. *Climate impacts/benefits*

1. Climate Change Problem

Impact of Climate Change on Land Degradation

In the highlands of Ethiopia, climate change is expected to increase both annual precipitation and seasonal variability in rainfall, increasing soil erosion by 7-10% per year and, in the more extreme scenarios, possibly by as much as 40-70% per year by 2050. Conservative estimates suggest that partly as a result of this increased soil erosion, climate change will reduce agricultural crop productivity in Ethiopia by 5 -10 % by 2030[1]. 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, approximately one in five people in Ethiopia.

***V*ulnerability of the agriculture sector and community livelihoods to climate change impacts**

The intersection of land management, rights, and use forms the key development issue for millions of rural Ethiopians facing water insecurity, food insecurity, land tenure insecurity, and livelihood insecurity – all amplified by climate variability and change as described above. Climate impacts in Ethiopia are felt primarily through water stress, which is affected by land use and degradation that undermines watershed function. In Ethiopia, the estimated cost of land degradation is 2-3% of GDP, before accounting for downstream effects, such as increased flood risk.

Exposure of farmers to land degradation

Since the 1970s, the Government of Ethiopia has recognized the problem of land degradation as a major challenge to the country's growth and stability. Studies have shown that land degradation has cost the country 2-3 percentage points in agricultural GDP each year. Due to its impact on agricultural productivity alone, soil erosion currently costs the economy of Ethiopia about $305 million per year. Based on Ethiopia's experience to date, the cost of inaction to address land degradation is estimated to be 4.4 times greater than the cost of preventative action through (SLM).[2]

Impacts of Climate Change and Variability on farmer livelihoods

Climate variability such as the droughts and floods described above already negatively impacts livelihoods in Ethiopia. This will aggravate the impacts of climate change, which are broad in scope and could be severe. Estimates suggest climate change may reduce Ethiopia's GDP up to 10 % by 2045, primarily through impacts on agricultural productivity. These changes would aggravate existing social and economic challenges.

Recently, the impact of climate change on crop yields in Ethiopia was investigated in a report published by IFPRI.[3] Overall, the simulated net effects of increases in average rainfall and higher average temperatures are relatively small. However, the authors note that there is growing evidence that weather outcomes, particularly rainfall, are likely to become more variable in the future, which could lead to substantial effects on crop production and household welfare (as well as on livestock) due to extreme events – droughts, floods, or extremely high temperatures.

Crucially, the models employed in the simulations do not take into account the impact of climate change on land degradation, while noting that in many parts of the country land degradation is already reducing yields. Climate change is likely to accelerate the levels of land degradation and soil erosion. As described in more detail in Annex A.7 and Annex A.8, recent analysis by the Water and Land Resource Centre (WLRC) of Addis Ababa University using soil loss equations calibrated using historical station data from two monitoring stations within the project area in conjunction with the IPCC's RCP4.5 scenario for 2050, show that soil erosion is expected to increase by 7-10% per year and, in the more extreme scenarios, could increase by as much as 40-70% per year by 2050 due to climate change in the absence of interventions to improve land management[4]. As a result, conservative estimates suggest that climate change will reduce agricultural crop productivity in Ethiopia by 5 -10 % by 2030.

1 Refer to Annex A.7., Annex A.8 and Bai, Z. G., Dent, D. L., Olsson, L., & Schaepman, M. E. (2008), "Global assessment of land degradation and improvement. 1. Identification by remote sensing". Wageningen, The Netherlands: International Soil Reference and Information Centre (ISRIC).

2 Gebreselassie et al. (2016).

3 Dorosh, P. and Minten, B. (eds.), 2019, Ethiopia's agri-food system: Past trends, present challenges, and future scenarios, Ethiopia Strategy Support Program (ESSP), IFPRI

4 Based on recent analysis by the Water and Land Resource Centre (WLRC) of Addis Ababa University

The direct impacts on crop productivity could in turn lead to impacts on prices, production, and consumption and on per capita calorie consumption and child malnutrition. Climate change, therefore, complicates efforts to increase food production and improve food security[5].

Sensitivity of rural communities to the impacts of climate change

Sensitivity to climate change and variability is high in the proposed project communities. More than 80% of Ethiopians are engaged in subsistence rain-fed agriculture and farms are already under significant climate stress. These populations are highly dependent on the performance of productive landscapes for income, energy, food, building materials, and water. Furthermore, agriculture accounts for most jobs and about 40% of output and exports. Low adaptive capacity contributes to high vulnerability in the proposed project communities. Most of the targeted watersheds are situated in regions that have relatively low adaptive capacity. As one study of vulnerability in the Tigray Region concluded, districts most vulnerable to climate change and variability overlapped with districts with the most vulnerable populations; climate vulnerability was inextricably linked to social and economic development.[8] Households that are short of basic economic and social resources clearly lack the means to undertake adaptive measures or respond to climate shocks.

2. Proposed Interventions/Summary of Project

The objective of the Project is to improve climate resilience, land productivity and carbon storage and increase access to diversified livelihood activities in selected rural watersheds.

The Project consists of the following parts to be carried out in select Regions of Ethiopia:

Part 1. Investment in Green Infrastructure and Resilient Livelihoods

Provide support for the restoration of degraded landscapes in selected watersheds and help build resilient livelihoods through the following program of activities:

(a) Land Restoration and Watershed Management: Implementation of sustainable soil and water conservation practices in line with Multi-Year Development Plans ("MYDPs") in watersheds, including land rehabilitation measures and establishment of green infrastructure (including rehabilitation through biological and physical conservation measures that ensure reduced surface run-off and soil erosion, as well as improved land productivity, resulting in enhanced crop and livestock production) through, inter alia: soil and water conservation measures, gully rehabilitation, establishment of green corridors, area closure management and use, establishment of plantation blocks, and enrichment of degraded pasture and rangeland;
(b) Climate-Smart Agriculture: Enhance the livelihood resilience of beneficiary households in restored micro watersheds by implementing context-specific Climate-Smart Agriculture ("CSA") activity packages comprising one or more of the following: farm water and soil moisture management, integrated soil fertility and soil health management, crop development and management, and environmentally-friendly livestock production through feed development and management; and
(c) Livelihood Diversification and Connection to Value Chains: Further increase livelihood resilience by diversifying livelihoods, and helping ensure livelihood sustainability by better connecting products with value chains in selected watersheds through a program of activities, including provision of technical assistance and grants to Common Interest Groups ("CIGs") and financing activities that facilitate private sector engagement in Project-supported value chains directly or through primary cooperatives and/or coop unions.

Part 2. Investing in Institutions and Information for Resilience

Enhance institutional capacity and improve information for better decision-making in supporting resilient landscapes and diversified rural livelihoods in the Project area through the following program of activities:

(a) Capacity Building, Information Modernization and Policy Development: Provision of technical assistance, at the local government level, to implement the Project and build capacity to sustain land and water management practices in watersheds, including financing of selected staff positions, financing of technical vocational education and training, development of data management plan, piloting of new technologies for information modernization (such as the use of electronic tablets for gathering geospatial information and the use of unmanned aerial vehicles for land certification

mapping), and development and application of a regulatory framework for the establishment of WUAs and community bylaws guiding land-use practices, and strengthening the Land Administration System; and
(b) Impact Evaluation, Knowledge Management and Communication: Carry out impact evaluations of (i) the bio-physical outcomes of MoA's SLM Program, and (ii) the productivity gains associated with the climate-smart agriculture interventions supported by the Project, establish a geospatial knowledge platform accessible to planners and stakeholders, and develop and implement a strategic communication program to inform and mobilize communities, and to enhance Project visibility and transparency among all actors.

Part 3. Land Administration and Use

Strengthen land tenure and the land administration system in Project areas and improve incentives for beneficiary communities to invest in sustainable landscape management through the following: (a) in the micro-watersheds targeted under Part 1 of the Project, improving the land tenure security of rural households and groups through land certification and administration (including issuance of Second Level Landholding Certificates ("SLLCs") to households, and targeted landless youth will receive communal land certificates, inputs, and extension services in exchange for land restoration), and (b) enhancing local level land use planning and support innovations in landscape certification systems (including providing support for participatory local land use planning and the rollout of the National Rural Land Administration Information System ("NRLAIS").

Part 4. Project Management and Reporting

Provision of support for Project management and reporting, including financing of Operating Costs and implementation of Project fiduciary aspects, including financial management, procurement, environmental and social safeguards, and monitoring and evaluation and reporting.

3. Climate Benefits

The proposed project is designed to create resilient landscapes and livelihoods for vulnerable rural populations in Ethiopia. The Resilient Landscapes and Livelihoods Project (RLLP) will improve climate resilience, land productivity and carbon storage, as well as improve access to diversified sources of income in selected vulnerable rural major watersheds in Amhara, Benishangul Gumuz, Gambella, Oromiya, SNNP and Tigray. The project scales up initiatives with demonstrated climate value and co-benefits within the Sustainable Land Management Program (SLMP), and it pilots new innovations. Proposed interventions target rural livelihood productivity and resilience through sustainable land management, low-emission resilient agriculture practices, enhanced land tenure, gender-sensitive livelihood initiatives which contributes to removing barriers to women's ownership of and control over assets and improving voice and agency, and the strengthening of value chains for long-term program durability.

The RLLP will contribute to climate resilience in 210 major watersheds with 8-12 micro-watersheds per major watershed. The beneficiaries of RLLP include the entire population of the selected watersheds, estimated at 4.2 million people, or 834,000 households. The project interventions are also expected to lead to a GHG emissions reduction of 43.9 million tons CO_2eq due to carbon sequestration as a result of improvements to grasslands and agriculture. 152 watersheds will be supported by IDA and MDTF (Contribution by Government of Norway), 18 watersheds by the anticipated contribution to MDTF by the Government of Canada, and 40 watersheds by GCF.

The executing entity is the Federal Democratic Republic of Ethiopia. The GCF Proceeds will be channeled through the World Bank and will be made available to the Federal Democratic Republic of Ethiopia. The World Bank will enter into a grant agreement and a loan agreement with the Federal Democratic Republic of Ethiopia, represented by MoF and acting through MoA for the implementation of the GCF Funded Activity.

5 Mahoo H, Radeny M, Kinyangi J, Cramer L, eds. 2013. Climate change vulnerability and risk assessment of agriculture and food security in Ethiopia: Which way forward? CCAFS Working Paper no. 59. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

B. PROJECT/PROGRAMME INFORMATION

B.1. Climate context (max. 1000 words, approximately 2 pages)

Climate change problem: Describe the climate change problem the proposal is expected to address. Describe the mitigation needs (GHG emissions profile) and/or adaptation needs (climate hazards and associates risks based on impacts, exposure, and vulnerabilities) that the proposed interventions are expected to address. Also describe the most likely scenario (prevailing conditions or other alternative) that would remain or continue in the absence of the proposed interventions. Include baseline information. The methodologies used to derive such information, including the mitigation and adaptation needs, should be included in the feasibility study.

Context: In describing the mitigation and/or adaptation needs, briefly describe the target region/area of the proposed interventions including information on the demographics, economy, topography, etc.

Related projects/interventions: Also describe any recent or ongoing projects/interventions that are related to the proposal from other domestic or international sources of funding, such as the Global Environment Facility, Adaptation Fund, Climate Investment Funds, etc., and how they will be complemented by this project/programme (e.g. scaling up, replication, etc.). Please identify current gaps and barriers regarding recent or ongoing projects and elaborate further how this project/programme complements or addresses these.

Ethiopia is an LDC that is among the most vulnerable to climate change and variability: it is exposed to severe climate impacts, its economy is highly climate-sensitive, and its adaptive capacity is low. In the ND-GAIN country index, Ethiopia ranks 163 out of 181 countries in terms of climate readiness. While the poverty headcount has fallen from 55.5 % to 26.7 % from 2000-2016[6], these gains are very fragile in a changing climate. Resilient agriculture is a high priority, as agriculture accounts for 41% of GDP, 85% of all employment and nine of the top ten export commodities by value[7].

Climate Change and Variability in Ethiopia

Ethiopia has a long history of having to cope with extreme weather events. Rainfall is highly erratic and typically falls in the form of intensive convective storms spawned by the country's varied topography. Over the past three decades, Ethiopia has experienced countless localized drought events and seven major droughts, five of which have been associated with famines. Climate varies significantly between and even in each one of the Ethiopian regions. Most of the recent drought and food crisis events have been geographically concentrated in two broad zones of the country, with the eastern and northern parts of the country being the most vulnerable. For example, rainfall variability and associated droughts have been major causes of food shortages and famine in the Tigray region in the north of the country.

There are numerous observed changes in Ethiopia's climate[8]. The most prominent observed climate change trend has been a tendency towards lower rainfall during the main growing seasons (March–May and December–February). A decline in rainfall of 15% on average has been associated with anthropogenic Indian Ocean warming. While floods have historically never been a major economic hazard in Ethiopia, in recent years there has been significant socio-economic disruption due to flooding, e.g. in 1997 and 2006.

Most global climate models project an increase in precipitation in both the dry and wet seasons. Climate scenarios based on the ISP2a emissions scenario run by a suite of Global Climate Models (GCMs) are broadly consistent in indicating increases in annual rainfall for Ethiopia as a whole. These increases are largely a result of increasing rainfall during the 'short' rainfall season (October-December) in southern Ethiopia. October-December rainfall is projected to increase between 10 and 70% on the average over Ethiopia. These changes will lead to an increase in heavy rains and floods. The temperature will very likely continue to increase for the next few decades at a rate similar to that seen in recent years. The projected increases in the inter-annual variability of precipitation in combination with the warming

[6] WB database, for Poverty headcount ratio at $1.90 a day (2011 PPP)
[7] CRGE (2014)
[8] Climate Risk and Adaptation Country Profile: Vulnerability, Risk Reduction and Adaptation to Climate Change - Ethiopia, World Bank, 2011. Downloaded from: http://countryadaptationprofiles.gfdrr.org

will likely lead to increases in the occurrence of droughts. Figure 1 depicts changes in precipitation and temperatures during the previous century and under projections beyond the year 2040.

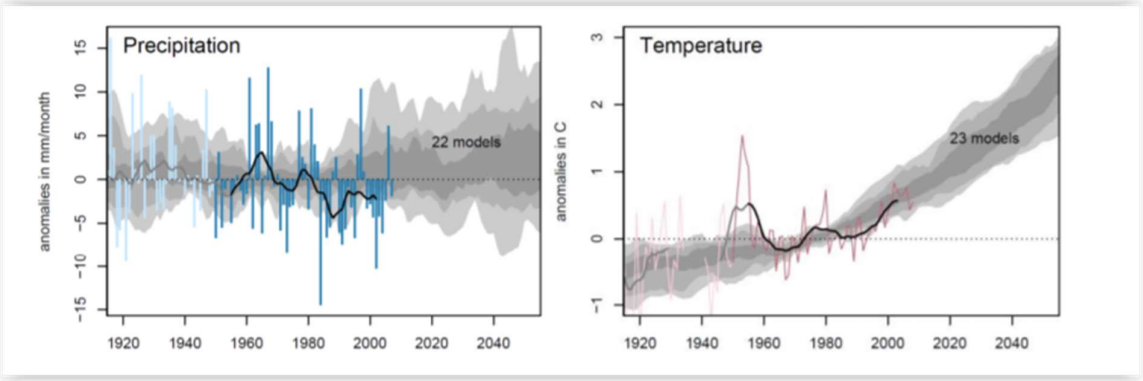

Figure 1 Observed and predicted changes in precipitation and temperature in Ethiopia[9]

In the highlands, climate change is expected to result in an increase in both annual precipitation and seasonal variability in rainfall.

Incremental costs of climate change

The supporting document "Technical Note to modeling soil loss" (Annex A.8) estimates change in soil erosion due to climate change in RLLP Project Watersheds. Results indicate that soil erosion is expected to increase by 7-10% per year and, in the more extreme scenarios, could increase by as much as 40-70% per year by 2050 in the absence of interventions to improve land management that builds resilience to the impacts of climate change. Under business-as-usual, the Sustainable Land Management (SLM) program estimates that a total of about 670 watersheds need approximately $2.7 million each in investment to prevent soil erosion i.e. $1.8 billion of total investment in Ethiopia (see Annex A.9. "Cost of watershed development interventions"). Conservatively assuming that (a) climate change could increase annual soil erosion by 50% (b) 1:1 relationship between increase in soil erosion and investment cost to build climate resilience, we expect that $904 million would be the incremental investment cost to prevent increased soil erosion due to climate change across all 670 watersheds in Ethiopia ($1.35 million of incremental cost of climate change per watershed). This cost would further increase in watersheds that are highly vulnerable to climate change since community contributions are likely to be less than regular SLM programs due exposure of beneficiaries to severe soil loss.

Both climate smart agriculture and sustainable land management are packages of measures in which several practices are implemented concurrently at the appropriate time and scale to achieve the triple win of climate change adaptation, climate change mitigation and increases in yields resulting in increased climate resilient livelihood. Hence it is not possible to identify the scope of GCF financing on the basis of differentiation between development activities and climate change activities. GCF is requested to finance RLLP activities in watersheds that are highly vulnerable to climate change. In order to identify such watersheds, a vulnerability analysis was undertaken in which 192[10] RLLP major watersheds were ranked by highest to lowest annual soil loss per hectare due to precipitation changes by 2050 under RCP 4.5 scenario (see Annex A.12.) compared to current levels. Top 40 of these watersheds were selected for GCF financing. IDA will finance RLLP activities in remaining 152 watersheds.

[9] Keller, M. (2009) Climate Risks and Development Projects. Assessment Report for a Community-Level Project in Guduru, Oromiya, Ethiopia

[10] Details of Co-financing from Government of Canada were not available during this analysis, hence 18 Watersheds supported by it were not considered

***V*ulnerability of the agriculture sector and community livelihoods to climate change impacts**

The intersection of land management, rights, and use forms the key development issue for millions of rural Ethiopians facing water insecurity, food insecurity, land tenure insecurity, and livelihood insecurity – all amplified by climate variability and change as described above. Climate impacts in Ethiopia are felt primarily through water stress, which is affected by land use and degradation that undermines watershed function. In Ethiopia, the estimated cost of land degradation is 2-3% of GDP, before accounting for downstream effects, such as increased flood risk.

Exposure of farmers to land degradation

Since the 1970s, the Government of Ethiopia has recognized the problem of land degradation as a major challenge to the country's growth and stability. Studies have shown that land degradation has cost the country 2-3 percentage points in agricultural GDP each year. Due to its impact on agricultural productivity alone, soil erosion currently costs the economy of Ethiopia about $305 million per year. Based on Ethiopia's experience to date, the cost of inaction to address land degradation is estimated to be 4.4 times greater than the cost of preventative action through (SLM).[11]

From 1981 to 2003, 296,812 km^2 (29.7 million ha) of land has been degraded, affecting a population of 20.65 million (Bai et al. 2008),[12] approximately one in five people in Ethiopia. Approximately 27 million ha or almost 50% of highland areas (which make up about 45 % of the total land area), is considered to be significantly eroded. Of this area, 14 million ha are seriously eroded, with over 2 million ha beyond reclamation. It is estimated that some 30,000 ha are lost annually as a result of soil erosion.[13] For the highland areas, erosion rates have been estimated to average 35 tons/ha/yr, while the estimated rate from the croplands is 130 ton/ha/yr. This has led to the conclusion that almost half of Ethiopia's annual soil losses come from the land under cultivation, even though this land covers only 20% of the country.[14]

Figure 2 shows the distribution of annual precipitation in Ethiopia. According to this mapping exercise, the majority of planned watershed restoration was conducted in areas with high levels of precipitation. These areas are highly exposed to erosion.

[11] Gebreselassie et al. (2016).
[12] Bai, Z. G., Dent, D. L., Olsson, L., & Schaepman, M. E. (2008), "Global assessment of land degradation and improvement. 1. Identification by remote sensing". Wageningen, The Netherlands: International Soil Reference and Information Centre (ISRIC).
[13] Berry Leonard (2003) Land Degradation in Ethiopia: Its Extent and Impact
[14] Ibid.

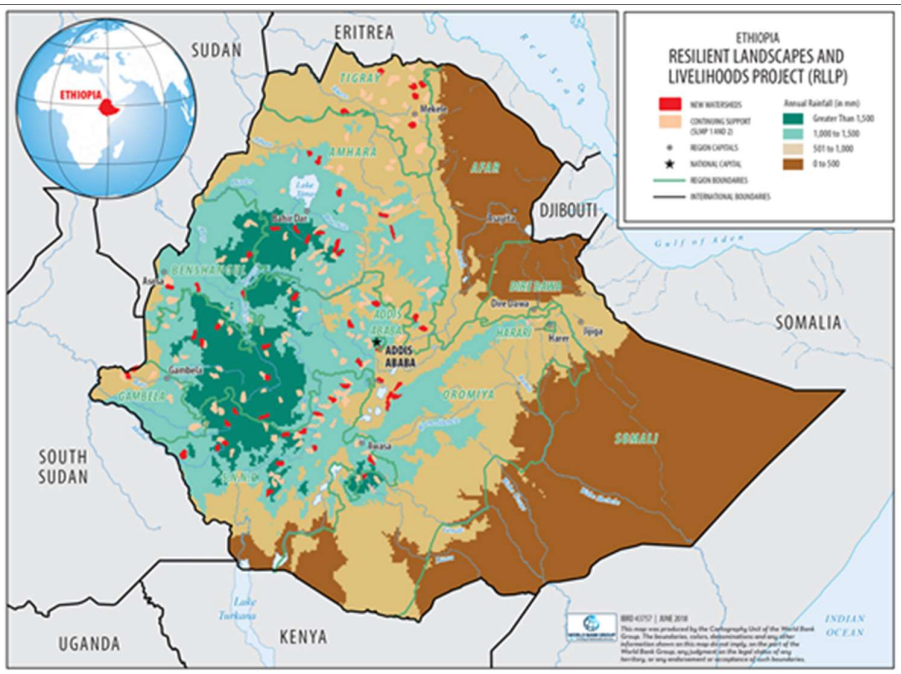

Figure 2. Annual precipitation distribution in Ethiopia

Impacts of Climate Change and Variability on farmer livelihoods

Climate variability such as the droughts and floods described above already negatively impacts livelihoods in Ethiopia. This will aggravate the impacts of climate change, which are broad in scope and could be severe. Estimates suggest climate change may reduce Ethiopia's GDP up to 10 % by 2045, primarily through impacts on agricultural productivity. These changes would aggravate existing social and economic challenges.

Recently, the impact of climate change on crop yields in Ethiopia was investigated in a report published by IFPRI. Overall, the simulated net effects of increases in average rainfall and higher average temperatures are relatively small. However, the authors note that there is growing evidence that weather outcomes, particularly rainfall, are likely to become more variable in the future, which could lead to substantial effects on crop production and household welfare (as well as on livestock) due to extreme events – droughts, floods, or extremely high temperatures.

Crucially, the models employed in the simulations do not take into account the impact of climate change on land degradation, while noting that in many parts of the country land degradation is already reducing yields. Climate change is likely to accelerate the levels of land degradation and soil erosion. As described in more detail in Annex A.7 and Annex A.8, recent analysis by the Water and Land Resource Centre (WLRC) of Addis Ababa University using soil loss equations calibrated using historical station data from two monitoring stations within the project area in conjunction with the IPCC's RCP4.5 scenario for 2050, show that soil erosion is expected to increase by 7-10% per year and, in the more extreme scenarios, could increase by as much as 40-70% per year by 2050 due to climate change in the absence of interventions to improve land management. As a result, conservative estimates suggest that climate change will reduce agricultural crop productivity in Ethiopia by 5 -10 % by 2030.

The direct impacts on crop productivity could in turn lead to impacts on prices, production, and consumption and on per capita calorie consumption and child malnutrition. Climate change, therefore, complicates efforts to increase food production and improve food security.

Sensitivity of rural communities to the impacts of climate change

Sensitivity of rural communities to the impacts of climate change
Sensitivity to climate change and variability is high in the proposed project communities. More than 80% of Ethiopians are engaged in subsistence rain-fed agriculture and farms are already under significant climate stress. These populations are highly dependent on the performance of productive landscapes for income, energy, food, building materials, and water. Furthermore, agriculture accounts for most jobs and about 40% of output and exports. Low adaptive capacity contributes to high vulnerability in the proposed project communities. Most of the targeted watersheds are situated in regions that have relatively low adaptive capacity. As one study of vulnerability in the Tigray Region concluded, districts most vulnerable to climate change and variability overlapped with districts with the most vulnerable populations; climate vulnerability was inextricably linked to social and economic development.[15] Households that are short of basic economic and social resources clearly lack the means to undertake adaptive measures or respond to climate shocks.

Adaptive capacity and barriers to change

Adaptive capacity in rural communities is low. Root causes are a combination of geo-climatic conditions (inherently fragile soils, undulating terrain, and highly erosive rainfall) and anthropogenic factors.

Baseline	BAU with climate change	Alternative
Poor cropland management practices: The farming system, particularly in the highlands, is dominated by subsistence cereal crops, which provide little ground cover when the most erosive rains occur (June-August). This system often requires frequent tillage and pulverization of the soil, rendering it more susceptible to erosion. Furthermore, limited soil conservation practices and the breakdown of traditional restoration measures, such as shifting cultivation, contribute to land degradation.	Current farming practices such as frequent tillage and limited soil conservation practices will lead to increasingly severe impacts as the climate changes, reducing agricultural yields.	Soil conservation measures are (re)introduced, preventing increased land degradation as a result of climate change (Activity 1.1.1, 1.1.2)
Rapid depletion of vegetation cover: Household energy needs are predominantly supported by wood and other biomass, causing an unprecedented level of deforestation. The loss of vegetation cover has been further exacerbated by agricultural expansion and livestock grazing. As a result, land has been stripped of vegetative biomass, exposing it to high levels of soil erosion. Average deforestation rates range	As the climate changes and erosion increases, land in deforested areas will be further degraded.	Promotion of efficient cookstoves reduces deforestation, enabling maintenance of vegetation cover even under the harsher conditions resulting from climate change (activity 1.31., WB funded) Seeds for climate resilient crop varieties, improved farm tools, fertilizer and other inputs are used by farmers to increase the productivity of agriculture, reducing the need for agricultural expansion into land made marginal as a result of climate

[15] Gebrehiwot, T. and A. van der Veen (2013). Climate Change Vulnerability in Ethiopia: disaggregation of Tigray Region. In Journal of Eastern African Studies, Vol. 7, Issue 4: 607.

from 1% to 1.5% annually, a high rate for a low forest cover country. Historically, Ethiopia was about 40% forested. By 2005, forest cover had been reduced to 2.4%, or 3.3. million ha, of high forests.		change (Activity 1.2.1) Free grazing decreases, enabling recovery of vegetation even in the harsher conditions resulting from climate change	
Poor livestock management: Ethiopia has one of the largest livestock populations in Africa, with more than 53 million cattle. Only 25 % of cattle graze in rangelands, while the remaining 75 % graze in the highlands, leading to serious overgrazing in areas that are already under high pressure. Because the country has a free grazing system, there is no incentive for cattle holders to apply improved management practices in grazing areas. The scarcity of grazing land and livestock feed has forced the widespread use of crop residues to feed livestock. Removing these crop residues for feed and utilizing cattle manure for fuel further reduces the soil's organic matter and nutrients. This breach in the soil nutrient cycle seriously depletes soil quality, increases erosion, and eventually reduces soil productivity.	As climate change leads to increased erosion, current practices of free grazing, using crop residues to feed livestock and using manure for fuel lead will worsen the impact of climate change on land degradation.	Livestock feed is grown and free grazing is decreased, ensuring grazing of land is in line with the reduced carrying capacity in the face of climate change (Activity 1.2.1) Improved management practices in grazing areas are introduced, decreasing this need to use crop residues to feed livestock and enabling the maintenance of soil organic matter and nutrients even under conditions of climate change. (Activity 1.1.1) Promotion of efficient cookstoves reduces the need to use cattle manure for fuel, meaning manure is available to build up soil organic matter, reducing the impact of increasing erosion as a result of climate change (Activity 1.3.1)	
Insecure land tenure system: Ethiopia is Africa's tenth largest and second most populous country. Its rugged topography makes it difficult to conduct rural cadastral surveys of millions of rural properties and hundreds of thousands of land parcels within a short period of time. Shortcomings in infrastructure also hinder the implementation of rural cadastral surveys. At the same time, there exists a pressing need to register and certify rural lands so that users can be secured and good governance and rural development can be promoted and upheld. In the past, land tenure insecurity caused by frequent land redistribution encouraged farmers in Ethiopia to favor short-term exploitation of land resources over long-term conservation, further contributing to land degradation and low farm productivity.	Users of land held under insecure tenure continue to favor short-term exploitation of land resources, even when climate change leads to an increasing need for long-term conservation measures in order to prevent deleterious impacts	Rural cadastral survey conducted with the help of drones (Activity 3.1.1) Land is registered and certified, providing users with the secure land tenure needed in order to invest in building climate resilience (Activity 3.2.1)	
SLMP-I and SLMP-II have supported some watersheds in	The inclusion of climate resilience in SLM activities	RLLP will scale up the introduction of climate resilience to smallholder	

transitioning to sustainable land management, but activities to graduate from project-based support are still needed. Further attention to the creation of resilient livelihoods is still needed.	has been piloted, but not yet introduced at scale	farmers within the framework of sustainable land management. RLLP will put in place the conditions for sustainable implementation of resilience building activities subsequent to the cessation of project based support through support to the creation of resilient livelihoods (Sub-component 1.2)
The PSNP supports food-insecure communities, aiming to achieve food security	Climate change will endanger the newly food secure status of communities graduating from the SNP	RLLP will support climate resilient food security of communities graduating from the PSNP and prevent a return to food insecurity of these communities as a result of climate shocks
The AGP 2 promotes value chain development and private sector engagement	In the absence of activities to build climate resilience, value chains and the private sector are vulnerable to the impacts of climate change	RLLP will work synergistically with the AGP-2 to create climate resilient value chains and a resilient private sector. AGP-2, as a mainstream government program, will continue to support communities to maintain the progress made in RLLP after project end.
The ATA supports some activities that can contribute to resilience such as the introduction of warehouses and Common Interest Groups`	In the absence of activities to build climate resilience, improvements due to ATA initiatives are vulnerable to the impacts of climate change	RLLP will work synergistically with the ATA to create climate resilient livelihoods
Other donors support activities aiming at improving food security and livelihoods in rural Ethiopia	In the absence of activities to build climate resilience, all progress made as a result of other donor funded activities is vulnerable to the damaging impacts of climate change	RLLP shall work with other donor funded projects in those areas where activities overlap to ensure activities are complementary and result in climate resilient progress
The GCF financed project “Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities” is being implemented by MoFEC	The MoFEC project will increase the climate resilience of water supplies in the targeted areas. It targets a different sector from RLLP, which focuses on resilient land use and agriculture.	RLLP will work closely with this project to ensure that targeted communities have comprehensively addressed the two major factors of vulnerability to climate change – water supply and agricultural productivity.

Barriers to change and the interventions to mitigate the barriers:

Barriers to change	**Intervention**
Limited awareness of the increasing impact of poor farming and land management practices on water resources and soil fertility as the climate changes	Improved knowledge management and communication (Activity 2.2.2) with both planners and communities, supported by data collection and information sharing (Activity 2.1.2)
The potential of land use planning to enhance resilience is untapped due to weak or absent land use planning	The on-going local-level participatory land-use planning exercise at kebele level is extended within the major watersheds of RLLP with the help of TA for consultation workshops (Activity 3.3.2).
Extension workers and policy makers lack awareness and technical expertise in climate resilient agriculture (CSA) practices. As a result planning and implementation of measures to increase the resilience of agriculture is	Capacity building of extension workers and policy makers equips them with the awareness and technical expertise to support farmers in increasing their climate resilience

insufficient	Robust impact evaluation, knowledge management and communication establish the conditions for national scaling-up of SLM for climate change adaptation and mitigation (Activity 2.1.1)
Lack of soil cover necessary for climate resilience	Mulching and cover crops is part of the package of measures for soil moisture and soil fertility management in CSA (Activity 1.2.1)
Insecure land tenure prevents investments in climate resilience	Outputs 3.1 and 3.2 of the project will initiate a program for the provision of second level land certificates to vulnerable, land insecure groups (WB funded)
Maintaining soil quality under conditions of climate change by using crop residues and manure is impossible due to competing uses	The need for using crop residues as feed is reduced due to improved management of grazing areas and feed production. Improved cookstoves (WB funded activity) will reduce the need for fuel. Soil fertility improvement is part of the CSA package of activities (Activity 1.2.1)
Lack of cash prevents farmers from continuing with the practices introduced as part of the project after project end	Support for resilient livelihoods and income opportunities (Activity 1.3.1 and 1.4.1)
Smallholder farmers are unfamiliar with practices that are part of Sustainable Land Management and climate resilient agriculture	SLM and CSA packages are introduced, including: improved seeds for climate resilient crops, improved farm tools, fertilizer and other inputs adapted to changed climatic conditions (Activity 1.1.1 and 1.1.2, 1.2.1)
Fragmentation, duplication and inefficiency of resilience building actions due to limited coordination among institutions, sectors, programs and projects that aim to support smallholder farmer	Improved coordination reduces duplication, increases efficiency and ensures comprehensive support to increase the resilience of smallholder farmers (Activity 2.1.1, 2.1.3)

Adaptation needs

Recent experience in Ethiopia has shown that a combination of better natural resource management and resource rights, jobs and livelihood enhancements, and gender outreach throughout targeted major watersheds can address the threats posed by land degradation and climate change. Effects of landscape restoration include a range of resilience-related results, including increased soil moisture and soil fertility important for higher and less variable crop yields, improved water availability, and increased carbon sequestration – all of which are high priorities for the government.

Much progress has been made by the government and thousands of local communities in addressing these challenges through proven investment packages under the Government of Ethiopia's SLM Program, with financing from the World Bank and other Development Partners (DPs). To bring these benefits to additional rural communities affected by land degradation, and to help Ethiopia meet its national targets for resilience and low carbon growth, while achieving middle income status in less than 10 years as planned under the Government's Second Growth and Transformation Plan (GTP-2), this work requires greater scale, further innovation, and improved cross-sectoral coordination.

The cost of the investment required to address current levels of land degradation is estimated at $800 million to over $2 billion, with approximately 670 watersheds needing approximately US$2.7 million each in investment to prevent soil erosion (see Annex A.9. "Cost of watershed development interventions"). Thus, the incremental investment in (SLM) required to build resilience to climate change could easily reach hundreds of millions of dollars. Conservatively assuming that (a) climate change could increase annual soil erosion by 50% (b) 1:1 relationship between increase in soil erosion and investment cost to build climate resilience, we expect that $904 million would be the incremental investment cost to prevent increased soil erosion due to climate change across all 670 watersheds in Ethiopia ($1.35 million of incremental cost of climate change per watershed). The request for less than US$ 180 million in GCF funding for this project is at the conservative end of cost estimates.

The RLLP Objective against the baseline: outcomes and impact that the project aims to achieve

The proposed project will draw on Ethiopia's decade of experience in addressing the root causes to scale-up tried and tested interventions. To help address barriers to the ongoing maintenance of restored landscapes, the project will introduce transformative support for resilient livelihoods and income opportunities.

Though significant results have been achieved over the years, much remains to be done. SLMP initiatives have allowed Ethiopia to pilot activities to address the root causes of land degradation in the country. However, no matter how

efficient, they were also a learning process. The RLLP project is a cross-cutting initiative that would scale up and improve the SLMP experience, implement lessons learned from previous activities, and significantly improve adaptive capacity of targeted areas. The project aims to scale up the number of restored watersheds, while also improving the ones already restored and creating an enabling environment, which will lead to productivity, resilience and overall development of livelihoods. The RLLP is a multidisciplinary project which will link together all relevant sectors in order to improve the resilience of livelihoods to the highest possible extent.

CSA measures will preserve restored land and will stop reversion to an erosion-sensitive state. These measures will also significantly increase the adaptive capacity of livelihoods, as they will introduce agrotechnical measures specifically designed to adjust to conditions outlined in climate scenarios, thus maintaining food security. The acquisition of processing equipment and storage facilities, as well as training to farmers and establishment of value chains will add value to goods produced through CSA. All of these activities will enhance adaptive capacity and reduce the exposure of participating communities to climate change.

This proposed project aims to:

- Increase the resilience of a total of 210 major watersheds located in the Ethiopian Highlands. Watersheds supported under SLMP-I will receive technical assistance to graduate from project-based support, while investments in SLMP-II watersheds will allow completion of their MYDPs. In addition, 57 new watersheds were selected based on criteria set out in the Ethiopia Strategic Investment Framework for Sustainable Land Management (ESIF), prioritized based on extent and severity of land degradation.
- Complete the implementation of Sustainable Land and Water Management (SLWM) practices by rural smallholders and communities under Multi-Year Development Plans (MYDPs) in SLMP-II watersheds and scale up these proven interventions to 57 additional watersheds (average 10,000 ha each) that are vulnerable to climate variability and change, recurrent drought and floods, and land degradation. The implementation of SLWM will increase resilience to sudden onsets and long –term climatic changes now and in the future. This is crucial in order to increase food security through preservation of the land, which is very exposed and sensitive to climate change impacts, especially in Ethiopia.
- CSA interventions under RLLP will be implemented in 135 watersheds that have already been supported with landscape restoration during SLMP I and II. SLMP-II piloted CSA in 70 micro-watersheds. As a result of the lessons learned from this pilot, MoA is now ready to implement CSA at scale and the RLLP, with the GCF support, will increase the number of micro-watersheds implementing CSA to 370. The implementation of CSA-specific measures is crucial in order to achieve sustainable agricultural production in the climate change impacted areas. They will enhance productivity and adaptation capacity of the livelihoods, as well as food security.
- Beyond physical and biological measures, the Sustainable Land Management Projects (SLMP-I and SLMP-II) have promoted livelihood diversification and income-generating activities. About 1,446 Self-Help Groups (SHGs) supported by SLMP-II are engaged in apiculture, poultry, sheep and goat fattening, and vegetable and fruit farming, and have contributed to the reduction of pressure on the watersheds' natural resources through the promotion of improved cook stoves. Improved cookstoves, while using the same type of fuel as baseline cooking technologies (which is mostly wood), reduce the amount of fuel needed. In areas in which some or all of the fuelwood used is nonrenewable due to overexploitation of local forests, the introduction of improved cookstoves reduces GHG emissions. In Ethiopia, the fraction of non-renewable biomass used is 88% (as determined for CDM projects). Hence, the introduction of improved cookstoves will reduce GHG emissions. Based on a review of the SLMP-II experience, RLLP will expand and strengthen these interventions through stronger engagement with the private sector (PS). This will result in a reduced exposure and sensitivity to climate change impacts onto Ethiopian agriculture. A detailed framework for private sector engagement under RLLP is presented in Annex B.1.
- Contribute to Ethiopia's long-term goal of achieving a carbon neutral economy by increasing carbon stocks in biomass and organic soil, as well as through the promotion of low carbon household energy technologies. Case studies across regions in Ethiopia indicate that Soil and Water Conservation (SWC) measures can significantly increase organic carbon content in soil. Soil carbon depletion rates from erosion alone range from 0.02 to 0.97 tons/ha/yr in Ethiopia. Effective land restoration can play a major role in the sequestration of organic carbon that is lost due to poor land management practices. Soil carbon sequestration with the adoption of restoration measures is projected to potentially account for 0.41 tonnes CO_2-eq. per hectare per year associated with rain-fed cropland and 0.63 tonnes per hectare per year on Ethiopian rangeland. Reforestation through assisted natural regeneration will further contribute to the mitigation of carbon emissions, at an estimated rate of 0.92 tonnes of CO_2-eq. per hectare annually.
- The project will enhance production and management of and access to relevant environmental, crop, livestock, forest, weather and geospatial information for land use decision making and disaster risk reduction at the levels

of major watersheds, community watersheds, and farms. Furthermore, it will provide support for developing relevant policies, regulations, and by-laws, including for the establishment of watershed associations.

- The project will improve the legal land tenure security of rural households and groups through land certification and administration, and it will expand and enhance local level land use planning and innovations in landscape certification models.

A mechanism and supporting elements to allow watersheds to "graduate" from project-based assistance and then continue sustainable management of restored landscapes through normal government mechanisms is built in to RLLP. Under SLMP-II, beneficiaries established community watershed teams to discuss natural resource problems and opportunities and to plan and implement interventions on the ground in an empowered, participatory manner. Under RLLP, support will be provided to create Watershed User Associations (WUAs), which would be legal entities capable of sustaining participatory watershed management when project-based support ends. In addition to establishing WUAs, RLLP will also prepare watersheds for graduation through (i) building local government capacity to design and manage SLWM interventions, (ii) strengthening incentives for investment in sustainable land management through land certification, and (iii) improving returns to sustainable productive activities by forging connections to value chains.

It is expected that without the proposed project, land use will continue on its current path while being subjected to negative and progressively more severe climate change impacts. Negative climate change impacts will further influence livelihoods due to insufficient adaptive capacity in project areas. Production yields will decrease while farmers will face increased input costs. Non-agricultural land in the watershed will also continue to deteriorate without the project due to soil erosion as well as overuse of common land through grazing livestock and firewood collection. This will put a further strain on local populations, who derive their livelihood from forests, woodlands, and surrounding areas. Downstream from the project area, continued land degradation will also affect areas and households through increased flood risk and sedimentation of irrigation dams.

Baseline projects

In addition to the GCF funded MoF project mentioned above, there are several other projects that are been implemented in the RLLP areas from which RLLP could benefit. RLLP will seek to establish synergies and avoid duplication of activities with these other projects.

GoE/WB Second Agricultural Growth Program (AGP-2)

AGP-2 currently operates in some woredas where there are SLMP-2 rehabilitated watersheds. They have implemented interventions to enable irrigation in some woredas. AGP-2 is engaged in support to key livestock and crop value chains (VCs), and is supporting productivity improvement, processing, storage/warehousing, market development in these VCs. AGP-2 and RLLP are implemented by same major donor (WB) and GoE ministry (MoA), and they are expected to have additional geographic overlap in the four main regions. In terms of value chain development and private sector engagement, RLLP will seek to harmonize as many methodologies and activities with AGP-2 as possible.

USDA Feed Enhancement for Ethiopian Development (FEED) II/III Project

FEED II is improving incomes and food security through improved availability, access and utilization of livestock and poultry feed. FEED III has been approved, will begin soon and will be in operation until at least 2020. Some woredas in which FEED II operates include SLMP I/II rehabilitated watersheds, and there promises to be even more geographic overlap in RLLP and FEED III. FEED II/III is seeking to exponentially expand their forage development and has the funds and technical personnel to do so. RLLP will seek to actively collaborate and pilot linking and contributing to activities in some of the overlapping woredas.

USAID Feed the Future Ethiopia (FtFE) Value Chain Activity (VCA)

The overall project objective of this initiative is to improve agricultural productivity and the commercialization of smallholder agriculture in the Tigray, Amhara, SNNP and Oromia regions. They support development of 6 major VCs – chickpeas, coffee, maize, dairy, meat and live animals and poultry. VCA is finalizing their selection of woredas to target, but they are expected to have significant geographical overlap with SLMP/RLLP.

Agricultural Transformation Agency (ATA)

ATA has completed construction of 44 warehouses in Tigray, Amhara, Oromia and SNNP regions, and it is eager to

facilitate and ensure the best possible use of these warehouses. The locations of these warehouses coincide with woredas in which SLMP-2 currently has rehabilitated watersheds and with woredas with new RLLP watersheds. Enterprising Common Interest Groups (CIGs) from SLMP-2 watersheds with RLLP support could assume management of selected warehouses.

B.2. Theory of change (max. 1000 words, approximately 2 pages plus diagram)

Describe the theory of change and provide information on how it serves to shift the development pathway towards a low-emission and/or climate resilient direction. Provide the diagram of the theory of change (approximately 1 page).

The theory of change should include any barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc., as relevant) that need to be addressed. Use a results chain of inputs, activities, outputs, outcomes, and impact statements, and identify the how and why of causal relations to deliver the project's expected results.

This integrated package of activities is the result of the extensive experience gained in previous projects and is essential to achieving paradigm shift. In order to achieve catalytic impact, it is essential to address all the root causes of land degradation, which include (i) poor cropland management practices, (ii) rapid depletion of vegetation cover, (iii) poor livestock management, and (iv) an insecure land tenure system. This approach grows out of the project's theory of change: by delivering more productive, secure and resilient livelihoods to local communities and by establishing the institutional framework needed to support maintenance of restored landscapes over the long term through watershed associations and local governments, the RLLP will lead to a durable shift towards SLM in the degraded watersheds of the Ethiopian highlands. A piecemeal approach in which only some of the drivers of degradation are addressed might lead to temporary, local improvement but would not lead to a sustained, widespread shift towards resilience for poor Ethiopian farmers. Figure 3 shows an illustration of this Theory of Change.

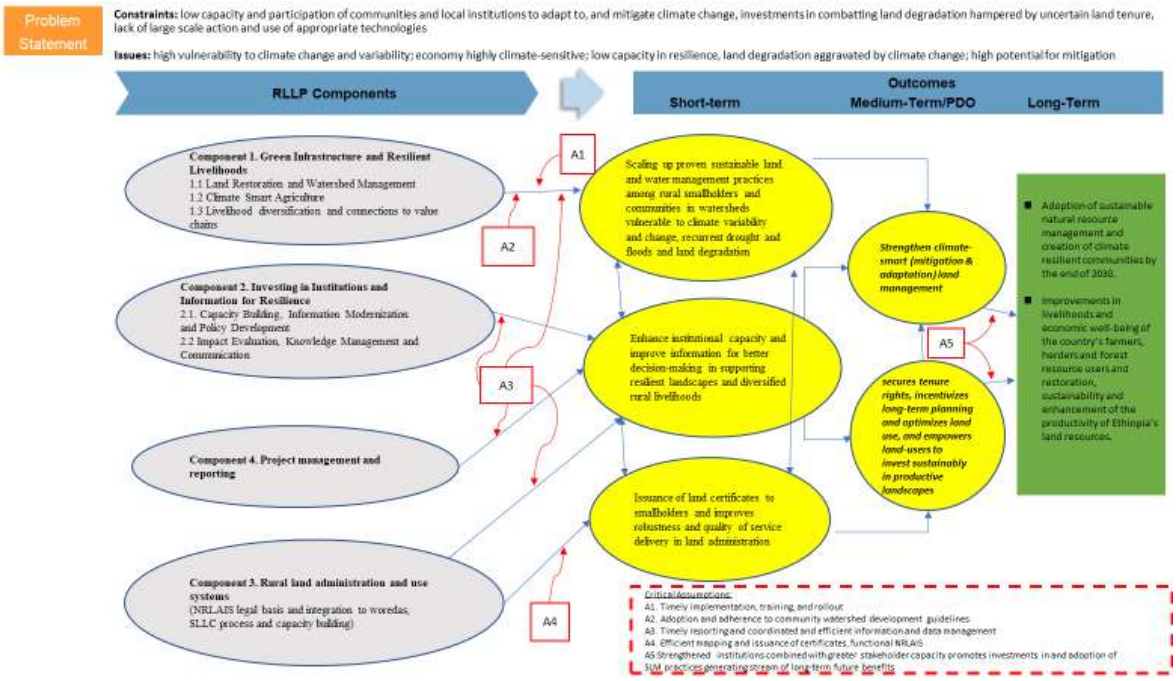

Figure 3. Illustration of Theory of Change

RLLP presents important opportunities for scaling-up and replication. While government and development partner interest in SLM in Ethiopia remains high, a crucial barrier to achieving the level of investment required to restore all

degraded watersheds nationally is the need to demonstrate a strategy for the long-term maintenance of these restored, newly productive, resilient, low emission landscapes. By building policy, institutional and market incentives for long-term SLM and by investing in robust impact evaluation, knowledge management and communication, RLLP will establish the conditions for national scaling-up of SLM for climate change adaptation and mitigation. In the shorter term, replication of the successes of RLLP interventions can also be expected in neighboring watersheds, a process that has already been demonstrated to dramatic effect in the ongoing SLM program as a result of informal dissemination of improved land and water management practices. Such informal dissemination can go far towards enabling scaling up and replication, since once they are introduced many of the project's activities depend on community participation for their success rather than on the private sector or formal financing.

B.3. Project/programme description (max. 2000 words, approximately 4 pages)

Define the project/programme. Describe the proposed set of components, outputs and activities that lead to the expected Fund-level impact and outcome results. Components should reflect the project/programme level outcomes.

This should be consistent with the financing by component in section C.2, the results and performance indicators provided in section E.5, and the implementation timetable in annex 5.

Referring to the feasibility study, describe why this set of interventions was selected instead of alternative solutions and how the project/programme can help unlock the needed support in a sustainable manner. Also identify trade-offs of the selected interventions, if applicable.

For Enhanced Direct Access (EDA) proposals and projects/programmes with financial intermediation (loans or on-granting), describe the selection criteria of the sub-project and types.

The proposed project will significantly enhance the resilience of the target populations' livelihoods to climate change impacts. The proposed interventions will enhance the resilience of interventions in the government's ongoing SLM program through an integrated package of activities and scale up the program while targeting the watersheds and communities that are most vulnerable to climate change. Figure 4 below indicates areas of the country that need SLM interventions, those that have already received support and areas that will receive support for the first time in RLLP.

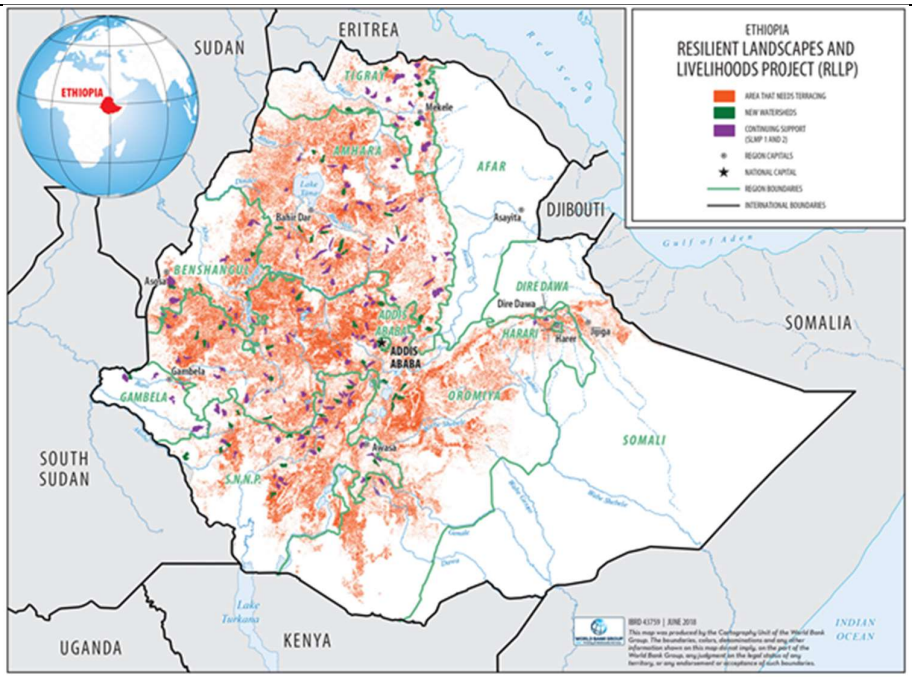

Figure 4 Watersheds mapped by areas needing SLM treatment

Project interventions include soil and water conservation (SWC) structures, reforestation and assisted natural regeneration, as well as low-emission and climate-resilient agriculture practices. The scaling-up of SLM for climate change adaptation and mitigation will be complemented with (i) transformational investments in income opportunities, resilient livelihoods, and the productive value chains associated with SLM, designed to strengthen incentives for communities to maintain restored landscapes; (ii) Cofinance for the promotion of low carbon household energy solutions; and (iii) land tenure.

The RLLP will be implemented through four integrated components: 1. Green infrastructure and resilient livelihoods; 2. Investing in institutions and information for resilience; 3. Rural land administration and use; and 4. Project management and reporting. Taken together, the activities in these components will achieve the project's objective of creating resilient landscapes and livelihoods for vulnerable rural populations in Ethiopia. Component 1 forms the core of the project in that it includes the activities directly implementing sustainable land management and agricultural practices. Component 1 also includes cofinanced activities addressing household energy services. These activities are essential to change the development pathway of rural Ethiopia to one in which land use is climate resilient. Non-sustainable use of biomass for cooking is one of the main drivers of deforestation and degradation in Ethiopia. The key interventions proposed in national policy include improved land use, diversified bioenergy options for cooking, and improving the efficiency of fuel production and use. The Environment Policy also makes the link between sustainable land management and controlled harvest of forest resources, with specific actions proposed including the promotion of technologies to reduce the use of fuelwood. In short, if cooking practices are unchanged then unsustainable harvesting of wood for fuel will continue, undermining progress in resilient land use made through the introduction of sustainable land management and agriculture.

Component 2 will create institutions and build capacity that will enable the interventions introduced in Component 1 to be sustainably implemented even after watersheds graduate from project-based support. Component 3 deals specifically with the barrier of weak tenure rights. The provision of security of tenure to smallholder farmers is essential to motivating to implement the new practices that will be promoted by RLLP. Without clear tenure and

strong land use planning it is likely that interventions introduced by the proposed project will be abandoned once project support ends. Finally, project management activities are covered by Component 4.

This integrated package of activities is the result of the extensive experience gained in previous projects and is essential to achieving paradigm shift. In order to achieve catalytic impact, it is essential to address all the root causes of land degradation, which include (i) poor cropland management practices, (ii) rapid depletion of vegetation cover, (iii) poor livestock management, and (iv) an insecure land tenure system. This approach grows out of the project's theory of change: by delivering more productive, secure and resilient livelihoods to local communities and by establishing the institutional framework needed to support maintenance of restored landscapes over the long term through watershed associations and local governments, the RLLP will lead to a durable shift towards SLM in the degraded watersheds of the Ethiopian highlands. A piecemeal approach in which only some of the drivers of degradation are addressed might lead to temporary, local improvement but would not lead to a sustained, widespread shift towards resilience for poor Ethiopian farmers.

Scale of the project, identification of targeted project area and beneficiaries

In terms of the scale of the project, the World Bank is confident that the benefits of implementing the interventions included in the project at the relatively large scale proposed outweigh the risks. A number of factors mitigate these risks, key among them being that the project builds on experience gained by the World Bank and the Federal Democratic Republic of Ethiopia during previous and ongoing projects. The proposed project benefits from the lessons learned over many years of projects aimed at sustainable land management, poverty alleviation and increasing the sustainability of agriculture in Ethiopia, and in particular the SLMP projects. These lessons led to the creation of the institutions that RLLP will build upon such as bottom-up watershed planning and self-help groups as well as the approach to CSA described in Annex A.3 in which a number of packages of activities are combined to achieve the triple goals of adaptation, mitigation and livelihood development.

For the Executing Entity, RLLP activities will come on top of activities with a budget of $316 million that are already disbursed or committed for SLMP, which are managed or coordinated by MoA. For both the sums already spent or committed and for the co-financing the World Bank provides to RLLP, the World Bank has conducted risk analysis and identified mitigation actions that resulted in the decision by the World Bank to commit its own funds to the project. The valuable experience gained during implementation of SLMP-II, as well as the significant Recipient-executed and Bank-executed resources allocated in the past five years for coordination and capacity building efforts are expected to be instrumental to improve or identify viable measures to address all the risks.

Total needs were a major consideration in deciding on the scale of the proposed project. Soil degradation is an ongoing problem that is becoming more severe with every passing year. There are significant costs related to inaction – the longer we wait to address the problem, the worse it will get, and the more expensive it will be. To achieve sufficient momentum for scaling up and replication, countrywide implementation is essential. The targeted watersheds for this project were selected with inter-regional equity in mind. A total of 210 major watersheds are included in RLLP, averaging approximately 10,000 hectares each. Out of these, 135 watersheds are those already targeted by SLMP-I and II. In these watersheds RLLP will implement only innovative climate resilient activities that were not included in SLMP. 57 watersheds included in RLLP are new to the implementation of (SLM) measures. The process for the selection of these new watersheds to be targeted by the project is summarized in Section E.4.1 and described in full in Annex A.1.

In order to achieve the aims of the project – achieving restored, productive and low emission landscapes, the project will work with the communities that are using these landscapes. Hence, beneficiaries are selected at the community level and the direct beneficiaries are individuals who are living within a project watershed. The members of these communities are vulnerable smallholder farmers, who are very sensitive and highly exposed to climate change impacts. The total population within the project area is 4.2 million people or 834,000 households (with an average of 5 persons per household). Evidence based data driven implementation and planning will ensure that

interventions benefit smallholder farmers. Detailed bio-physical information for new watersheds, including individual landholdings, will be collected during the Multi-Year Plan (MYP) preparation of each watershed. Local level participatory land use planning teams at woreda and kebele levels would ensure that interventions benefit the smallholder farmers. The baseline study report for 90 watersheds of SLMP II found that the average land holding was only 1.338 ha. Agro-ecologically, watersheds above the altitude of 2300 meters and lowland areas between 500 and 1500 metres, have an average land holding of only 0.83 ha and 2.082 ha respectively. Furthermore, about 4.2% of the households have no land at all (3.5% of male and 6.5% of female headed households), 10.6% have less than a quarter of a hectare and 21.9% less than a hectare.

The experience of previous phases of the project has shown that there is a high willingness to participate by populations of the proposed intervention areas. The World Bank has tracked community contributions during the second phase of SLMP implementation. Translated into monetary terms, the cumulative community contribution in the four budget years from 2014/15 until 2018/19 was 23.5% of the total financial utilization of the project, equal to about USD 27 million. The most important contributions by the population were in the implementation of soil and water conservation measures on both communal land and farmland and community forest management.

The project components and activities are described below. Implementation will be guided by the recommendations and supporting studies that comprise the feasibility study. These documents provide guidance on which technology alternatives should be selected depending on local circumstances. Quantitative information on numbers of beneficiaries and areas benefiting from each activity, as well as a breakdown of funding between GCF and co-finance is provided in the detailed budget in Annex K.1.

Component 1. Green Infrastructure and Resilient Livelihoods

This component will greatly increase the adaptive capacity to climate change of the target population by scaling up proven sustainable land and water management practices. These practices will be introduced to rural smallholders and communities in watersheds vulnerable to climate variability and change, recurrent drought and floods and land degradation. Three complementary approaches form the core of this Component: (i) land restoration through sustainable land management, predominantly targeting communal lands, in which physical and biological interventions are made to prevent erosion and restore degraded land; (ii) a standardized approach to low-carbon resilient agriculture, which targets private lands; and (iii) support for income opportunities and resilient livelihoods, which is designed to provide incentives for maintaining restored landscapes. The project will work through government development agents in the Bureaus of Agriculture at the local level, which will mobilize and support communities, providing them with continuous training.

This component will complete the adoption of Sustainable Land and Water Management (SLWM) practices by rural smallholders and communities under MYDPs in SLMP-II watersheds, and it will scale up these proven interventions to 57 additional watersheds (average 10,000 ha each) that are vulnerable to climate variability and change, recurrent drought and floods, and land degradation. Activities will include financing SLWM interventions on communal and individual lands (with differentiated levels of community contribution), as well as supporting infrastructure such as green corridors linking fragmented forests, and community roads designed to optimize water harvesting. Proven SLWM practices that will be implemented include: soil and water conservation infrastructure such as terraces, water harvesting trenches, check dams, small reservoirs, and other civil works; soil fertility and moisture management; assisted natural regeneration, enclosures plus livestock land use rationalization, intercropping, low tillage, gully reclamation, establishment of grazing corridors, watering points and wells, and sylvo-pastoral management strategies. Government Development Agents (DAs) in the Bureaus of Agriculture will mobilize and support communities and receive continuous training to ensure high-quality advice and extension services.

The specific technological solutions implemented under Subcomponent 1.1 and 1.2 in each watershed will be determined using a participatory community-based approach. The approach used is described in the Community Based Participatory Watershed Management Guideline[1]. The community-based participatory approach will identify the most appropriate technologies that respond to the unique needs of each individual watershed included in the RLLP. This approach will result in a number of benefits, including improved community ownership and engagement, as well as ensuring that expected results are achieved and sustained. More information is provided in Section F.2.

During the participatory planning communities first present the problems they have (problem analysis) and depending on the availability of labor and finance they prioritize interventions based on the Community Based Participatory Watershed Development Guidelines (CBPWDG). Once prioritized and agreed the plan is approved by woreda responsible office (office of Agriculture). The procedures are clearly presented in the Community Based Participatory Watershed Development Guideline, excerpts of which are provided in Annex A.2

The objectives of this component will be achieved through the implementation of the following sub-components: (i) Land restoration and watershed management; (ii) Climate-smart agriculture; and (iii) Livelihood diversification and connections to value chains.

Sub-component 1.1 Land Restoration and Watershed Management

Sustainable Land Management activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 55.9 million) and by GCF in watersheds identified for GCF funding (budget of USD 100 million).

Afforestation-Reforestation-Green Corridor - Activities will be funded by IDA and MDTF only in watersheds identified for IDA funding (budget of USD 1 million).

This sub-component will focus on the implementation of land rehabilitation measures and establishment of green infrastructure through biophysical land and water conservation measures. These measures are required primarily for the rehabilitation of communally-owned degraded forest, pasture and woodlands, but also for privately cultivated lands, as well as to enable and maintain agricultural production in harsh climate conditions which are exacerbated by climate change. One key objective of this sub-component will be to create benefit streams to the communities in the targeted micro watersheds from increased ecological services and land productivity, mainly through productive use and management of landscapes resources. In addition to the proven practices applied during SLMP-II, this sub-component will also introduce the establishment of green corridors, which will further reduce erosion, enhancing watershed restoration, and increase ecological connectivity.

The objective of the sub-component will be achieved through biological and physical conservation measures that ensure reduced surface run-off and soil erosion, as well as improved land productivity, resulting in enhanced crop and livestock production. The following activities will be supported:

- *Soil and water conservation measures on communal and privately cultivated lands:* biological and physical soil and water conservation measures/practices such as construction of terracing, check dams, water harvesting (e.g. trenching), reseeding, re-vegetating, etc. will be implemented on degraded communal and farmlands;

- *Gully rehabilitation:* Cost efficient biophysical gully restoration techniques such as sandbag check dams, sediment storage dams and gabion-check dams will be applied. Productive use and management of the rehabilitated gullies will be supported, such as for forage, fruit and fuel wood production;
- *Establishment of green corridors:* Planting suitable, preferably native, tree species along rivers/streams and all-weather roads connecting forest patches in the watersheds. Post plantation management support including tending, hoeing and soil moisture conservation will be carried out. Green corridors will also be established along gully offsets to ensure stability and productive use of the land;
- *Area closure management and use:* assisted natural regeneration through restrictions on free grazing, enrichment planting, soil fertility improvement and moisture retention will be implemented in communal areas and/or privately managed degraded bush and woodlands. Cost efficient management practices of enclosures will include supporting local communities in the preparation and execution of participatory use and management plans of enclosed areas, including forage cut-and-carry arrangements;
- *Establishment of plantation blocks:* Reforestation and afforestation of degraded forest and shrub/bush lands with a diverse range of tree and shrub species that can be used as a source of food, feed and energy, and enhance fertility of the soil. Planting of appropriate tree seedlings including economically valuable species, and post-plantation management practices such as tending and watering in moisture stressed areas, hoeing and weeding during early stages will be carried out to ensure survival of the planted seedlings; and
- *Enrichment of degraded pasture and rangeland:* Planting and reseeding of appropriate forage species including fodder crops in degraded pasture and rangelands to increase productivity and improve the value of feed for grazing animals. Management of unpalatable invasive species will also be undertaken in pasture and rangelands to ensure optimum forage production.

Suitable rehabilitation interventions for each micro-watershed are determined based on the particular agro-ecological conditions and incorporated in a MYDP, developed through a participatory process, utilizing the technical parameters and procedures established in the Community Based Participatory Watershed Development Guidelines (CBPWDG, 2005) developed by MoA, and currently being updated. MYDPs already exist for SLMP-II watersheds, but they will be developed under the RLLP for the watersheds that have not yet been addressed.

Supported by the Zonal, Regional and National Platforms (see details in Annex 2), implementation of MYDPs is undertaken jointly at the woreda and kebele levels through the Woreda Watershed Development Committee (WWDC), the Kebele Watershed Development Committee (KWDC), and the beneficiary communities. Together with the Development Agents (DA) and Community Facilitators, the WWDC and KWDC assist communities in: (i) developing annual work plans and budgets for submission to the Regions for endorsement and integration into the Regions' work plans and budgets; (ii) facilitating community participation in watershed planning and rehabilitation; (iii) identifying training needs; (iv) monitoring and evaluation; and (v) dissemination of experiences and results. This sub-component will also provide resources for local expertise to be contracted to provide technical assistance to WWDCs, KWDCs and beneficiary communities in planning and implementing their SLM interventions. The operational details for the planning, design, and implementation of MYDPs will be planned during implementation. A guideline has been developed that will be used for this: "*Exit Strategy and Performance Assessment for Watershed Management (ESPAWM) – A Guideline for Sustainability*" (see Annex L.3.).

The alternative technologies and practices selected for Sustainable Land Management are:

- Physical soil and water conservation measure on farmlands
- Physical soil and water conservation measures on communal lands including degraded hillside, shrub land and pastureland
- Gully control measures including gully wall reshaping, check dam and retaining wall construction
- Pitting and planting of multi-purpose trees on degraded lands
- Model plantation blocks with native tree species

Additional alternative technologies and practices selected under this sub-component include:

- Afforestation
- Reforestation
- Green corridor creation
- Multiyear development plans
- Watershed management and use plans
- Watershed user associations

Sub-component 1.2 Climate Smart Agriculture

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 18.5 million) and by GCF in watersheds identified for GCF funding (budget of USD 15 million).

Interventions under this sub-component will aim at enhancing the livelihood resilience of beneficiary households through Climate-Smart Agriculture (CSA) interventions in all eligible micro watersheds assisted by the project. The improved adaptation of restored watersheds to variable rainfall patterns and adverse climatic events, combined with reduced degradation-related risks (achieved through sub-component 1.1), will provide suitable conditions for beneficiaries to adopt improved, climate-smart farming practices and diversify and/or intensify their current production systems. For this, technical and financial assistance will be provided to stabilize soils and increase fertility; improve water retention, harvesting and infiltration; increase biomass (and carbon) accumulation; and promote the adoption of climate-smart tillage and production practices in farm plots and home gardens. The introduction of such practices is needed to ensure agricultural productivity in coming decades given expected climate change impacts as described in section C.2.

This sub-component will build on the achievements of sub-component 1.1, such as improved water run-off retention and infiltration, gully and degraded hillside stabilization, and enhanced biomass production. This connection to the biophysical restoration of the landscape is important, as it will help ensure that unsustainable agricultural practices do not reverse prior restoration measures. In this way, agricultural activities become fully integrated into the watershed/landscape restoration approach and contribute towards the goal of climate resilient watersheds. The ongoing pilot of CSA within SLMP-II and lessons from international experience indicate that CSA cannot be achieved by a single measure or practice. In order to achieve the triple wins of adaptation, mitigation and increased production, technical and financial assistance will be provided to implement context-specific packages of CSA activities. The primary set of technologies for CSA that have been selected for use in the project are described in the manual for Climate Smart Agriculture (Annex A.3) (see also Section F.2 Technical Evaluation for more information). The following CSA activity activities are based on the manual for CSA which outlines 4 work/activity packages, will be supported under this sub-component:

- *Farm water and soil moisture management (based on Work/Activity Package 1 of CSA manual):* This will include in situ soil moisture management practices such as improved tillage, mulching/permanent soil cover and water harvesting including construction of cut-off/on drains and road water harvesting. Provision of improved farm tools/machineries for moisture conservation tillage will be considered under this activity;
- *Integrated soil fertility and soil health management (based on Work/Activity Package 2 of CSA manual):* Various soil fertility management practices such as improved compost making including bio-slurry, vermi-compost and manure management (including bio-digestors); lime and gypsum application for acidic and alkaline soils respectively; promotion of tree-food crop-livestock systems (agro-forestry practices); and crop rotation and legume intercropping will be integrated as a package and promoted based on local conditions and farmers indigenous knowledge and commitment;
- *Crop development and management (based on Work/Activity Package 3 of CSA manual):* Access to better performing crops (drought and disease resistant) will be supported based on local-level adaptive research

and crowd-sourcing by farmers over a wide range of crop varieties (both local and improved cultivars). Integrated pest and disease management, including post-harvest management, will be implemented to minimize crop yield losses. Productive use of increased soil moisture through production and management of high value crops, such as vegetables and fruits, will also be part of this activity package. Improved farm tools and machinery such as line planters, tillage and harvesting equipment will also be tested to improve the efficiency and effectiveness of the cropping system; and

- *Environmentally-friendly livestock production through feed development and management (based on Work/Activity Package 4 of CSA manual):* High quality and quantity forage in pasture and along farm boundaries, gullies and back yards will be a priority to minimize dependence on crop residue as livestock feed, and to ensure increased use of biomass for soil fertility improvement. Efficient use livestock feed resources through feed treatment and improvement of feeding troughs will also be implemented to reduce losses. Appropriate integration of agro-sylvo-animal husbandry practices will be introduced at the homestead level based on the needs of local farmers and the suitability of local conditions. Practicing an integration of multi-purpose food and tree cropping with livestock rearing at the homestead can improve the fertility and organic matter content of soils and increase crop yields and household food security.

CSA interventions under RLLP will be implemented in micro-watersheds that have already been supported with landscape restoration during SLMP I and II. The following set of criteria was used to select eligible micro-watersheds: (i) at least 75 % of the watershed restoration plans completed; (ii) community agreement on controlled grazing enforced; (iii) forage development partly implemented; (iv) farmland covering more than 50 % of the micro-watershed area; (v) access to functional farmers training centers (FTCs); (vi) adjacent to SLMP-II CSA pilot watersheds; (vii) local knowledge or traditional practice of multi-cropping system; and (viii) commitment of community and kebele watershed teams.

Consistent with existing limitations, the operational unit for CSA interventions in eligible micro-watersheds will be groups of organized farmers and their corresponding contiguous farm plots. The number of groups and farm plots will be determined during the planning phase based on the budget allocated to the woreda for CSA. CSA groups will be organized by the DAs assisted by woreda experts. In each group, the number of members should ideally range between 20 and 30 farmers. These groups will constitute the equivalent of the Common Interest Groups (CIGs) promoted by AGP, which will prepare results-oriented subproject proposals, integrating packages of goods, small works, services and/or operating costs) for RLLP financing. The project will provide required input to the CSA interest groups to improve efficiency of the farming practice. The operational procedures –including procurement methods--for the implementation of the CSA subcomponent of the project are included in the existing CSA Field Manual, developed by SLMP-II and to be updated for RLLP.

CSA is knowledge intensive and entails moving toward an agro-ecological approach, but these changes are necessary to increase resilience to climate change. Project practitioners will therefore need to extend their support to beneficiaries beyond the planning phase and provide technical assistance throughout the entire adoption cycle. The workload of the local technical unit will therefore include resources to: (i) conduct periodic visits to the plots of farmers implementing CSA practices, (ii) establish demonstration or testing plots, and (iii) organize and conduct dissemination activities such as field days and farmer exchange visits. Equally important, the regional structure should be capable of providing technical backstopping to DAs through periodic joint field visits, on-farm refresher training, as well as assistance in planning and conducting demonstration activities.

CSA technology testing and demonstration activities, as well as collaboration with research and academic institutions, will also be a part of CSA implementation. Farmer Training Centers (FTC) or similar structures will be identified and utilized at the watershed level for these activities, while contributions by research and academic institutions for the identification of appropriate technologies and practices will be implemented through the establishment of a CSA Innovation Platform.

The alternative technologies and practices selected are:

- Soil moisture management including drainage and cutoff drains in micro-watersheds
- Agroforestry
- Disease and drought resistant crops
- Improved farm machines/tools (handheld harvester, ripper, line planter, mechanical weed slasher)
- Compost making
- Organic/biofertilizer
- Improved livestock feeding troughs including feed treatment materials

The RLLP promotes Climate Smart Agriculture, including the use of mulch, cover crops and minimum tillage, which also seeks to minimize the application of agrochemicals. The combination of CSA activities and the implementation of the integrated pest management plan included in the ESMF will reduce vulnerability to pest and disease impacts. The resulting improved crop production together with the provision of high-yielding and disease tolerant seeds will support efforts to minimize the use of pesticides and agro-chemicals in the project area.

RLLP resources will not be used to purchase pesticides, herbicides, biocides, or GMO and Patented Hybrid Seeds.

Sub-component 1.3 Livelihood Diversification and Connections to Value Chains

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 6.1 million) and by GCF in watersheds identified for GCF funding (budget of USD 28 million). Activities for the promotion of high performing cookstoves will be funded only by IDA and MDTF in watersheds identified for IDA funding (budget of USD 0.5 million). No GCF funds will be requested for activities related to the promotion of high performing cookstoves.

This sub-component includes innovative activities that will enhance the sustainability of the resilient, improved livelihoods created as a result of the activities in sub-components 1.1 and 1.2. The generation of sustainable improved incomes for the vulnerable smallholder farmers targeted by the project will enable them to maintain the rehabilitated watersheds. Without the activities in this sub-component there is a risk that poverty will lead the beneficiaries to return to previous, unsustainable practices after the project ends, reversing the gains made through the introduction of sustainable land management and climate smart agriculture.

The activities include advisory services and investment to improve access to and implementation of climate resilient livelihood diversification. These activities will help address the issue of landless/jobless youth/women and the resulting increased stress on the natural resource base and its potential to reduce climate risks. A number of potential interventions have been identified. Examples include support to women-managed local enterprise development, vocational training, processing equipment and CSRPs, facilitation of access to markets, technology and trade and a suite of other initiatives to incentivize private-sector engagement. It will also finance activities that facilitate private sector engagement in RLLP-supported value chains directly or through primary cooperatives and/or coop unions, as well as direct investment in landscape restoration through PES, CSR or volunteer/good citizenship. In addition, this sub-component will provide small, seed-fund grants to SHGs, CIGs and/or WUAs to launch or expand productive, processing and storage activities, based on an analysis of what the markets will purchase, and therefore what will increase incomes of households and sustainability of the rehabilitated watersheds. Finally, the WB will support co-financed activities aimed at creating a market for improved cookstoves (funding from GCF is not being requested for this activity). Non-sustainable use of biomass for cooking is one of the main drivers of deforestation and degradation in Ethiopia. If cooking practices are unchanged then unsustainable harvesting of wood for fuel will continue, undermining progress in resilient land use made through the introduction of sustainable land management and agriculture. Reducing demand for fuelwood is critical to maintaining restored landscapes in

project communities. In addition, as heating and cooking efficiency improves, use of manure and crop residues for cooking and heating decreases, allowing these materials to be used on fields to enhance soil fertility.

MoA has drafted eligibility criteria for choosing watersheds and commodities eligible for value chain. For example, the followings are criteria for watershed selection: Sense of ownership of communities' watersheds managing team. i.e., Capacity, experience and commitment of (CWT, KWT, WTC &WSC,). - Watersheds aligned with GIZ-SURED support. - Existence of other private sector support programs. -Rehabilitation status of watersheds: coverage area of rehabilitated land in watersheds; soil fertility that is suitable for high value commodities; availability of alternative water sources. - Accessibility to all weathered roads and other infrastructure development. - Accessibility for Market linkages and reliability of commodity supply. - Accessibility to inputs providers, extension services deliveries and financial institutions. - Widely existence of proactive community and lead farmers (MHH and FHH) to accept for new innovations, technology, etc. – Whether RLLP is providing support for CSA. -Unemployment status of the community/ies within the watersheds.

RLLP is only (a) providing in-kind support such as warehouses and equipments and (b) organizing awareness, training and workshops for various groups. No sub-loans or sub-grants will be made to any groups or individual beneficiaries.

Innovation for climate resilient livelihood diversification and private sector development

These activities will focus on private sector development (PSD) in RLLP rehabilitated community watersheds. Product processing and bulking capacity will be developed that will enable sustainable, environmentally friendly livelihoods, thus increasing incomes, which in turn will lead to the maintenance of rehabilitated watersheds and improved food security in the face of climate change. Without appropriate infrastructure and facilitated linkage of the private sector, newly developed livelihood interventions will diminish and eventually fail, causing households to revert to previous harmful practices and removing the incentive for maintenance of rehabilitated climate-smart watersheds, leaving them exposed to risks driven by climate change. If watershed communities produce high-quality, semi-processed products for bulk purchase by the private sector, they will encourage the private sector to go the "last mile" to these watershed communities even though lower-quality, unprocessed and unbulked commodities might be closer at hand.

Processing Equipment and Training: Activities will support the shared purchase of and training on key agricultural processing equipment, which will increase the value of crops produced through climate smart agriculture (CSA) and livestock products produced through intensive, environmentally friendly methods by watershed communities/households. Such equipment may include the following: Forage processing mills, grain threshers, weighing scales, grain mills, processing sheds, dairy processing equipment, poultry and egg processing equipment, bamboo processing equipment and tools, and vegetable storage/transport containers.

Heavy equipment is not included in the list of eligible equipment. The use and maintenance of eligible equipment is delineated in the bylaws and governance structures of CIGs, cooperatives, self-help groups, female groups to which equipment may be made available.

Community Storage Receipts Programs: The project will foster the development of community storage receipts programs (CSRPs) in RLLP rehabilitated watersheds by building warehouses or other types of storage facilities and training community organizations to develop and maintain CSRPs. One of the major barriers to the implementation of resilience building measures by farmers is lack of cash. Once the project is completed and concessional finance

is no longer available, farmers will need cash in order to be able to continue practices introduced by the project such as the use of improved seeds, improved farm tools, fertilizer and other inputs. The CSRP will provide immediate cash to poor farmers, improving their food security and ability to pay for other necessities as well as allowing them to improve productivity by investing in agricultural inputs such as seeds, fertilizer and other inputs through their available income. The CSRP approach will be managed by organized CIGs/Watersheds Associations or cooperatives which have legal personality to sign contracts, access loans from MFIs or FIs and management capacity as compared to fragmented farmers with weak management capacity and difficulty of accessing loans from MIFIs or FIs due to lack of confidence , weak financial management and difficulty of collection/repayment, could not present collateral. Such initiative has never been tested under SLMP-1 and SLMP-2. But WB financed initiative such as the AGP initiated such approach using CIGs.

These CSRPs will store commodities in demand by the private sector that will be weighed and valued according to expected market price at the proposed time of sale and labeled accordingly. The producer will then receive a receipt for the commodity and 50% of the expected purchase price from the CSRP manager, and the commodities will be stored carefully and properly until the time of sale. After the commodities are sold, the producer will receive the other portion of the proceeds based on the actual sales price and a small deduction for the cost of the service.

Crop and other value chain commodities will vary according to watershed conditions with primary commodities integrated in the Ethiopian Commodity Exchange Trading System such as coffee, sesame, red-kidney beans, white pea bean, green mung bean, chickpeas, soybeans, wheat, maize. The watersheds identified for interventions have agro-ecologies that are suitable for most of the commodities mentioned above. Additionally, domestic demand for teff, barely, fava beans, honey, and spices will inform the selection of value chains to be supported.

CLIMATE INDUCED RISK: The CSRP will support the establishment of stores sufficient to mitigate temperature/moisture, frost due to climate change and related pests/insects, which might adversely impact the quality and value of the crops. CSRP: These stakeholder groups will be overseen by the respective cooperative, union, or watershed user association which have legal standing in Ethiopia to sign contracts and access financing. CSRP Management: Based on their legal standing and capacity, cooperatives, unions, or watershed user associations will manage the CSRPs. CIGs and SHGs will subscribe as members to participate in CSRP schemes.

SLMP-I and SLMP-II EXPERIENCE: The CSRP-related initiative was not tested during the SLMP-1 and SLMP-2. However, the Ethiopia Agricultural Growth Program (AGP) provides lessons and experience regarding CSRP that have been integrated in the RLLP. Other programs such as the Ethiopian Commodity Exchange (http://www.ecx.com.et) have also generated relevant experience and capacity in SLMP-I and SLMP-II-supported watersheds

The cooperatives/watershed user associations and the CIGs will be responsible for developing the management and business structure of the CSRP. Primary management responsibilities will be held by cooperatives or watershed user associations. The coops/watershed associations would set price that accommodates such price risks when designing their bylaws and marketing strategy. The CSRP supports farmers to overcome their immediate problems, among others. The CSRPs is chiefly applicable to agricultural products which are subject to fluctuating price within the harvest and lean seasons. The System is an important and effective tool for creating liquidity and easing access to credit. It also offers additional benefits such as smoothing the supply and prices in the market, improving smallholder farmers' incomes, and reducing food losses. The system can play dominant role in the development of the overall agricultural sector, by permitting smallholder farmers to hold food back to the lean season, allowing them to access markets on more equitable terms, and enhancing the efficiency of the entire commodity chain. The CSRP has legal personality and can enter into agreement with the farmers.

There will be a strong emphasis on the formation, strengthening of and support to activities of the CIGs under this sub-component because these semi-formal groups, which may transition to either primary cooperatives or enterprises, are currently the main community-level organizational unit used for AGP-2 activities, and they are governed by MoA-approved guidelines, including requirements for organization, planning and financing. This sub-component will provide resources for local expertise to be contracted to provide technical assistance to support beneficiary communities in forming CIGS, and in planning and implementing income-generating activities and investments to strengthen connections to local value chains.

In the co-financed support of livelihood diversification, emphasis will be given to the establishment of CIGs/SHGs for the production and marketing of improved cook stoves. These groups not only provide an alternative source of income, but they also deliver multiple co-benefits, including time savings for women and girls in fuelwood collection, health improvements through reduced household air pollution, and reduced pressure on local biomass resources through improved household energy efficiency. As heating and cooking efficiency improves, use of manure and crop residues for cooking and heating decreases, allowing these materials to be used on fields to enhance soil fertility.

Initial support for livelihood diversification and connections to value chains will target beneficiaries in watersheds that have already begun or completed implementation of their MYDPs, where support for CSA is being provided and support from AGP and/or other PS-oriented development activities will complement RLLP efforts. This will facilitate success at this pilot level and allow for any needed adjustments before scaling up these activities in later years of the project. In addition to SHGs and CIGs at the watershed and/or woreda level, stakeholders involved in this sub-component include primary cooperatives and their unions, Cooperative Agencies at various administrative levels, the Rural Saving and Credit Associations (RuSACos), private sector enterprises and their sectoral associations, and Woreda Offices of Agriculture, Water, Mineral and Energy. For the production of improved cookstoves, the Woreda office of Cooperative Promotion will: (i) support organization of CIGs/SHGs to produce energy efficient cook stoves and promote improved cook stoves (ICS) host demonstrations at local markets and other local level gatherings; (ii) through the Bureau of Energy, Water and Mineral, provide technical experts to conduct training for the producer groups; and (iii) provide beneficiaries/consumers support in establishing local channels of finance (such as traditional savings groups - *ekub*).

Potential maladaptation risks with initial commodity processing are mitigated through the design of the project. The project promotes sustainable land management on all land belonging to the target watersheds. Hence, even if agricultural production expands as a result of the development of markets for commodities, the expanded production will also use the climate smart agriculture measures that have been introduced. In addition, agricultural production on lands already in use will increase substantially, leading to a decrease in the need for new agricultural land. Land mapping (the cadaster will have information on agricultural land) as well as issuing land certificates will prevent uncontrolled expansion of agricultural land, as only those with land certificates will be eligible to participate in the market. Sustainable land management will ensure that there is no further deforestation in the targeted areas (which are already highly deforested and degraded). Furthermore, the establishment of green corridors and elimination of free grazing will contribute to the preservation of the non-agricultural land, while at the same time enhancing forest cover and preventing deforestation. RLLP will support SLM practices to limit free grazing in project areas including activity packages that address sustainable livestock production, through feed development and integrated agro-silvo-pastoral practices. The creation of information platforms and provision of technical assistance will also reduce the risk of maladaptation, as information and outreach will result in increased awareness and improvements in local livelihoods.

High-performing cookstove technologies

The activities supported were identified and selected based on the results of the study “Assessment of Household Energy Options in RLLP Intervention Areas” that is included as Annex A.4 to this proposal. The WB will support a

set of activities aimed at reducing the use of fuelwood, which is one of the major drivers of deforestation and degradation. Reducing demand for fuelwood is critical to maintaining restored landscapes in project communities. Activities include the establishment of improved cookstove production enterprises, provision of technical and business training to the enterprises, introduction of alternative fuels production including efficient charcoal production, and the creation of consumer awareness of the advantages of using improved cookstoves and new fuels. Details on the technologies that will be promoted and on awareness raising activities planned are provided in the assessment report of household renewable and energy efficient technologies options. The project will lead to the creation of viable businesses producing efficient cookstoves and consumer awareness of the benefits of using them, as well as encouraging rural saving groups to support improved cookstove purchases. The activities will be supported by the Regional Energy Bureaus, who will subsequently introduce similar activities to areas under their remit that are not covered by RLLP.

The alternative practices selected under sub-component 1.3 include support to:

- Common Interest Groups (CIGs)
- Climate resilient livelihood diversification including promotion of improved cookstoves, cultivating fruit trees, bamboo handicrafts, beekeeping, etc
- Self-Help Groups (SHGs)
- Cooperatives
- Unions
- Watershed User Associations (WUA)
- community storage receipts programs (CSRPs)
- Enterprises to manufacture, promote and sale fuel saving cookstove and alternative cooking fuels
- Formal and traditional saving groups for the purchase of RE/EE products

Component 2. Investing in Institutions and Information for Resilience

The objective of this component is to enhance institutional capacity and improve information for better decision-making in supporting resilient landscapes and diversified rural livelihoods in the project area, both for the duration of the project and after project completion.

This component will build capacity at the local government level (woreda and kebele) for (i) planning and managing SLWM interventions, and (ii) managing the land certification process. This will include piloting of new technologies for information modernization at the local level, including the use of electronic tablets for gathering geospatial information, and the use of Unmanned Aerial Vehicles (UAVs – or drones) for land certification mapping. Tablets and UAVs will be the property of the project (i.e. MoA) and would be provided to development agents and the woreda focal persons in the project watersheds for mapping and monitoring. The device setup, training, and support provided will be tailored to meet the conditions and realities faced in field environment (i.e. off-line data collection, accessories (protective case, solar charger, etc.), guidance materials, technical and trouble-shooting support).

RLLP intends to monitor all watersheds using UAV. The current capacity within the PCU is classified as low to moderate and is improving. For example, under RLLP the addition of a database manager as key personnel to support data management. The use of UAV's is currently limited in Ethiopia due to GoE security concerns and the lack of a policy governing their use in general. The PCU with assistance from WB is currently supporting efforts to develop guidelines on the use of UAVs that would ultimately support monitoring efforts more broadly and with fewer restrictions. Despite the restrictions, to data the PCU has been a leader in the use of UAVs to support project activities as demonstrated by receiving permission to use UAVs to collect imagery for parcel demarcation under the land administration component. The PCU will need to further improve the quality and efficiency with which M&E data are collected and analyzed with additional expertise to manage the UAV monitoring component.

Support for policy development under this component will focus on the regulatory framework for Watershed User Associations (WUAs), community bylaws guiding land-use practices, and strengthening the Land Administration System. This regulatory framework, once established, will continue to support resilient land use after project completion. To strengthen the evidence base for sustainable land management decision-making, this component will include a bio-physical impact evaluation of SLWM interventions, to be conducted through a partnership arrangement between the MoA, the Water and Land Resource Centre of Addis Ababa University, and the Ethiopia Development Research Institute's Environment and Climate Research Center. This will complement a livelihoods impact evaluation of SLWM interventions to be conducted in parallel led by the Gender Innovation Lab of the World Bank's Africa Region. When completed, these evaluations will be available to interested parties in Ethiopia and the region wishing to institute or improve SLWM. This component will also provide resources to manage the knowledge generated through these and other assessments of SLWM, and to communicate the lessons learnt to a broad audience, including local governments and communities, relevant research institutions and Government agencies, as well as Development Partners.

This component's objectives will be achieved through the implementation of the following sub-components: (i) capacity building, information modernization and policy development, and (ii) impact evaluation, knowledge management and communication.

Sub-component 2.1. Capacity Building, Information Modernization and Policy Development

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 7.9 million) and by GCF in watersheds identified for GCF funding (budget of USD 16.15 million).

This sub-component will build capacity at local government level to implement RLLP, and to sustain SLWM interventions after watershed graduation from project-based support. To achieve this, the sub-component will finance accountants to support the head of the Woreda office of Agriculture (WoA) and a focal person in each participating woreda, and part-time community facilitators at the kebele level (5 community facilitators for in each major watershed). To help build the capacity necessary for an effective land administration system, this sub-component will also provide technical assistance for training in this field.

This sub-component will support information modernization to coordinate data collection and information sharing at all levels and under all components of the project so that this information is well organized, properly documented and accessible. As part of this effort, a data management plan will be developed that specifies how all data used or created during the course of RLLP will be documented, stored and otherwise managed. The use of electronic tablets to collect information on project activities and results, combined with appropriate survey and mapping software, will improve the quality and timeliness of data collection and reduce the effort needed to compile, review, and generate the necessary reports. This framework will facilitate access to information and support timely feedback to the local level.

This sub-component further supports the use of aerial vehicles (UAVs)/drones to generate high-quality and timely aerial imagery data to support planning, monitoring, and land certification. Under this initiative, the drones will be operated by several teams of trained operators who will travel to the project sites. During the course of RLLP each micro-watershed will be re-visited twice each year at appropriate intervals to generate visual and multi-spectral images of the program areas. At each stage the processed imagery will be shared with the woreda and local field staff for the purpose of assisting in planning, monitoring progress and updating implementation plans. The data and materials produced will also be used to support M&E and will serve as a source of information and data for subsequent analysis. Detailed technological specifications and budget have been elaborated including the technical requirements for the drones, all associated equipment and spare parts, operating costs for the duration of the project. The use of the drones is intended for the collection of information and data that will be available for long-

term use and for project planning and monitoring. The project will work with the Information Network Security Agency (INSA) and the Ethiopian Aviation Authority to ensure all necessary permits are obtained.

Policy development under this sub-component will focus on the regulatory framework required for the establishment of Watershed User Associations (WUAs), crucial for sustainability of SLWM interventions, frameworks for reward and incentive schemes such as Payments for Environmental Services (PES), as well as community byelaws guiding land-use practices, and strengthening of the Land Administration System.

In developing the framework for WUAs, the Project will work closely with regional governments for its application in establishing WUAs. This work will commence with reviewing of the environmental legislation that relates to the use and management of Ethiopia's natural resources (soils, forestry, grassland, water, wildlife, etc.). The manual for CSA will be used to proceed and enhance this activity. RLLP will give high attention to the opportunities of engagement of private sector (PS) in all development activities of the project. The first objective of PS engagement in RLLP is, to attract the PS to invest in RLLP interventions. The second objective is to create and increase income streams & diversified livelihoods for the communities in a sustainable manner through the promotion of inclusive business and value chain/partnership relationship based on profitability principles.

Sub-component 2.2 Impact Evaluation, Knowledge Management and Communication

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 5.1 million). No GCF funding is requested for this sub-component.

Impact evaluations (IEs) will use rigorous research methods to look at specific interventions under RLLP, assess the contribution of these to development goals and provide robust evidence of SLM impact. Project funding will focus on the evaluation of bio-physical impacts, which will be conducted in coordination with a livelihoods impact evaluation to be led by the Gender Innovation Lab of the World Bank's Africa Region, financed separately. The bio-physical impact evaluation will examine the response of the environment to SLWM interventions, considering parameters such as peak and base surface water flows, groundwater levels and recharge rates, sediment loads, and remotely sensed information on vegetation cover and soil moisture. For the purposes of this evaluation, the project will extend the existing partnership between MoA, the Water and Land Resource Center of Addis Ababa University, and the Environment and Climate Research Centre of EDRI, and will aim to build new partnerships with relevant international research organizations. IEs are expected to be completed within the Implementation Period (five-years) and the MOA will procure service providers for such purposes. The IE's disclosure will be subject to WB's access to information policies.

In addition to the bio-physical IE and the livelihoods IE an evaluation of climate-smart agriculture will also be conducted. Due to the complexity of the evaluations the details of their implementation are still under development and will be further elaborated in the terms of reference, acceptable to the World Bank. Basic design of the IEs is expected to be as follows: the livelihoods IE is expected to involve random assignment. The biophysical IE will involve a 2-stage sampling where in the first stage a stratified selection of watersheds to be treated will be performed and in the second stage watersheds will be paired with a suitable comparison watershed (outside project watersheds). This is being done to increase the explanatory power of the evaluation given the large cost associated with each watershed monitored. The CSA evaluation is expected to follow a treatment-control comparison methodology and the potential for randomized assignment within the CSA micro-watersheds is being explored. In any case, the sampling of treatment and control will be randomized.

To build a solid and effective knowledge management system both for the project and the SLM program in Ethiopia, this sub-component will establish a geospatial knowledge platform that combines information from a variety of project and other sources and packages it in a format that is accessible to planners and stakeholders at the national, regional, and local levels. This activity will build upon the work being done by WLRC under SLMP II to

develop a web-based knowledge management system. By enabling farmers to improve their planning the platform will decrease their exposure to climate change related risks.

A strategic communication program will be developed and implemented under this sub-component to inform and mobilize communities, enhance project visibility and transparency among all actors, support efforts to scale-up SLM and CSA practices, and build support for the land certification program. Strategic guidelines for the implementation of the Knowledge Management and Communication (KMC) program have been developed following a rapid KMC needs assessment. The guidelines include viable options of knowledge management, knowledge sharing and communication with effective channels, techniques, tools and key messages that address the communication and knowledge management needs of beneficiaries, stakeholders, partners and actors at various level. While following those guidelines, implementers will have room to elaborate, modify and adapt additional communication and knowledge management interventions to meet the overarching goals and specific objectives outlined in this sub-component. The identified overarching goals are: 1) to build and coordinate a strong knowledge base contributing to the effective promotion, reporting and scaling up of SLM within Ethiopia; and 2) to inform and mobilize local communities, strengthen consultation/ participatory development models, and enhance transparency in program-supported activities. The specific objectives of the KMC program are to: a) Support scaling up efforts and adoption of SLM and CSA practices; b) Help evidence based planning and reporting through enhanced information flow among institutions and coordination of monitoring and evaluation; c) Enhance the program visibility among all actors thereby attract new development partners and insure the buy-in of the government; d) Sustain the outcomes of SLM practices through awareness raising campaigns. This includes relevant activities in components 1 and 3 such as land certification. The guidelines include means of verification to evaluate the effectiveness of the activities implemented within the KMC program.

Possible activities include:

i. knowledge identification, capturing, validation and packaging annually to support scaling up efforts, build capacity of user groups, youth groups, DAs and FTCs (experiential knowledge, best practice and synthesis of explicit knowledge products from various sources such as the geo-spatial knowledge platform, the CSA Innovation Platform, model watershed, etc.);
ii. strengthening and enhancing functionality of existing FTCs and SLM information centers at woreda level and establishing info centers in new woredas;
iii. outreach activities (i.e. production of printed, audio and video materials to be used as supporting tools during workshops and events, and media tours for journalists and PR officers of relevant regional bureaus to show project results);
iv. knowledge sharing/networking events (i.e. annual SLMP Knowledge fair); and
v. advocacy activities to support private sector engagement, policy development and other key initiatives for RLLP effective implementation (i.e. organization of Stakeholders Workshops).
vi. grassroots level behavioral change campaign targeted to major/critical watersheds, based on preliminary research to define appropriate media (drama, storytelling, etc.) and effective messengers (i.e. community/religious leaders) and gauged throughout the duration of the program through a mix of qualitative/quantitative research methods (FGDs, community level meetings, survey);
vii. public information awareness activities on land registration and cadastral surveys, land laws and procedures and conflict resolution mechanism, and to explain the benefits of (formalized) rentals and unlock the blockage set by cultural norms, emphasizing that temporary land renting does not imply abandonment and formalized rental contracts do not result in land being expropriated.

Component 3. Rural Land Administration and Use

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 26.0 million). No GCF funding is requested for this component.

As indicated under the root causes section above, land tenure insecurity caused by frequent land redistribution in the past has encouraged farmers in Ethiopia to favor short-term exploitation of land resources over long-term conservation, contributing to land degradation and declining productivity. The objective of this component will be to strengthen the land administration system that secures tenure rights, optimizes land use, and empowers land-users to invest sustainably in productive landscapes. This component will be funded entirely by co-finance. No funding from GCF is being requested for this component. Refer to detailed budget (Annex K.1.).

Component 3 will provide security of tenure to smallholder farmers through Second Level Landholding Certification (SLLC) as an incentive to increase the adoption of SLWM technologies and practices. The on-going SLLC exercise at kebele level will be extended to all kebeles within the watersheds targeted by RLLP, with resources provided for orthophoto production and para-surveyors for field level data acquisition, and data encoders for office level data management. It will support the use of low-cost, fit-for-purpose surveying and mapping technologies including drone aerial mapping and mobile mapping using tablets as appropriate. Activities to be supported will include (i) orthophoto base map preparation, (ii) adjudication of land rights and demarcation of parcel boundaries on the field map, (iii) scanning, geo-referencing and digitization of parcel boundaries and attributing information, (iv) public display for validating parcel (shape and size) and landholders' information, (v) parcel map and Landholding Certificate preparation, production, authentication and issuance, and (vi) procurement of equipment, materials and consumables for cadaster and land registration activities. Matching funds to complete woreda level coverage of SLLC will be sought from State governments and development partners.

This component will also extend the on-going local-level participatory land-use planning exercise at the kebele level within the major watersheds in the RLLP. Technical assistance will be provided to support consultation workshops for land-use plan development at the kebele level and to connect these consultations to the larger land-use planning exercises underway at the regional and national levels.

This component will also support the rollout of the NRLAIS in RLLP woredas that do not overlap with other land administration support projects. In Gambella, the project will support the installation and roll out of the NRLAIS both at the regional and woreda levels, as none of the development partners have interventions in Gambella. NRLAIS will provide security, transparency, maintenance of the land information with enhanced data management functionality and usability at woreda level in an efficient, effective, spatially integrated and sustainable manner. It will also equip the regional and federal authorities with an adequate tool to produce and avail statistical data on rural land tenure and land use that facilitate evidence based monitoring and ensure a coordinated and consistent approach to the development of policies, legislations, standards, models and research to enhance sound land governance across the country.

At the woreda and kebele levels, implementation of this component will be undertaken jointly by the Woreda Office of Land Administration and Use (WoLAU) through the Kebele Administration Offices, the Kebele Land Administration and Use Committee (KLAUC), the Land Administration and Use DAs, and the communities. Field teams will be contracted, trained and deployed, each comprising a team leader, a para surveyor, a data recorder, a digitizer, and a Woreda GIS expert and a supervisor, to facilitate and undertake the field and office level land certification activities. Woreda and kebele land use teams will anchor the preparation of Participatory Local Land Use Plans. At the Regional and Zonal levels, the Bureau of Land Administration and Use (BoLAU) and related agencies will lead the implementation of this component of the project with support from the Regional RLLP PCU. At Federal level, the Land Administration and Use Department (LAUD) in the MoA will be the main focal point for

policy, planning, and implementation guidance to RLLP Regions and Woredas. A NRLAIS rollout support unit established at regional and federal levels will provide technical assistance for this activity.

Synergies with interventions on land administration support from other development partners have been identified. These include the Responsible and Innovative Land Administration in Ethiopia Project (REILA[16]) being implemented by Finland and the Land Investment for Transformation Project (LIFT)[17] being implemented by the UK Department for International Development (DFID). These two projects together with RLLP will spatially synergize efforts on the national roll-out of the NRLAIS and distribution of SLLCs. Further discussions with DFID will identify possible support to the Rural Land Administration and Use Department (RLAUD) to: (i) expend their economic empowerment interventions to adjacent RLLP woredas to maximize benefits of land certification; and, (ii) complete SLLC in kebeles outside of watershed boundaries in RLLP woredas. Close coordination with other development partners (e.g. GIZ, USAID) will build on experience from SLMP-II and will be ensured through the G7 Donor Working Group on Land.[18]

Component 4. Project Management and Reporting

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 11.5 million) and by GCF in watersheds identified for GCF funding (budget of USD 6.09 million).

The objective of this component is to effectively consolidate plans and budget, implement and report on project activities with due diligence and integrity.

This component will finance the operational costs of Regional Project Coordination Units (RPCUs) in MoA and Regional State Bureaus of Agriculture. In total, there will be 7 RPCUs – one in MoA and one in each of the regions in which the project will be implemented (Amhara, Oromia, Tigray, SNNP, Beneshangul/Gumuz, and Gambella). These RPCUs will carry out all fiduciary aspects of project implementation including financial management, procurement, environmental and social safeguards, Monitoring & Evaluation (M&E), sector coordination of investment targeting and policy harmonization, and donor coordination structures. The project will support a modernized M&E system for collecting, managing and analyzing activity data and achievements. A tablet-based system of data collection that incorporates tools for capturing spatially explicit activities and area treated will be integrated into the project-wide strategy for the modernization of information management outlined under sub-component 2.1. The enhancements and functionality incorporated into the M&E system will improve the quality and accuracy of data while at the same time serving as a platform for providing feedback to the local level on progress, which will support improved decision-making.

[16] REILA II is a 4.5-year project with a total budget of € 7.81 million. The project aims to: 1) Improved regional LA and increased and certified land tenure security for land users (in 6 woredas in Benishangul Gumuz and 11 Woredas in Amhara region) and NRLAIS rollout; 2) Improved capacity for federal and regional LA for planning, management and coordination, and for accurate and efficient land surveying; and 3) Improved supply of skilled manpower to the LA sector.

[17] LIFT operates in four regions (Oromia, Amhara, SNNR, and Tigray) with a total funding of £ 63 million. LIFT aims to support the Government of Ethiopia in the provision of map based land certificates to farmers and assist them to fully benefit from increased investment and productivity through the development of the rural land market and its supporting operations.

[18] In 2013, the Governments of Ethiopia, the United Kingdom, the United States of America, and the Federal Republic of Germany announced an agreement to enter a **land country partnership** to work together to improve rural land governance for economic growth and to protect the land rights of Ethiopians. The partnership was envisioned to build on existing programs and serve as a vehicle for increased coordination and collaboration among the Government of Ethiopia and its development partners. Since then the WBG has been an active member of the G7 **Land Partnership** through its active operations managed under ENR portfolio such as SLMP, OFLP, and CRGE TA.

Reporting at the federal, regional, woreda and community levels will aim to ensure sound tracking of progress information (activity/output level results), to evaluate information from a variety of sources relevant to outcome-level results, and to promote learning and adaptive management. The outputs under this activity include: (i) implementation of a new Results Based M&E Plan based on clear guidance on what to collect and how to collect it (indicator protocols); (ii) a well-functioning MIS system; (iii) improved capacity of stakeholders in M&E; and (iv) improved quality of information collected.

Scale of the project, identification of targeted project area and beneficiaries

In terms of the scale of the project, the World Bank is confident that the benefits of implementing the interventions included in the project at the relatively large scale proposed outweigh the risks. A number of factors mitigate these risks, key among them being the fact that the project builds on experience gained by the World Bank and the Federal Democratic Republic of Ethiopia, acting through MoA, during previous and ongoing projects. The proposed project benefits from the lessons learned over many years of projects aimed at sustainable land management, poverty alleviation and increasing the sustainability of agriculture in Ethiopia, and in particular the SLMP projects. These lessons led to the creation of the institutions that RLLP will build upon such as bottom-up watershed planning and self-help groups as well as the approach to CSA described in Annex A.3 in which a number of packages of activities are combined to achieve the triple goals of adaptation, mitigation and livelihood development.

For the Executing Entity, RLLP activities will come on top of activities with a budget of $316 million that are already spent or committed for SLMP, which are managed or coordinated by MoA. For both the sums already spent or committed and for the co-financing the World Bank provides to RLLP, the World Bank has conducted risk analysis and identified mitigation actions that resulted in the decision by the World Bank to commit its own funds to the project. The valuable experience gained during implementation of SLMP-II, as well as the significant Recipient-executed and Bank-executed resources allocated in the past five years for coordination and capacity building efforts are expected to be instrumental to improve or identify viable measures to address all the risks.

Total needs were a major consideration in deciding on the scale of the proposed project. Soil degradation is an ongoing problem that is becoming more severe with every passing year. There are significant costs related to inaction – the longer we wait to address the problem, the worse it will get, and the more expensive it will be. To achieve sufficient momentum for scaling up and replication, countrywide implementation is essential. The targeted watersheds for this project were selected with inter-regional equity in mind. A total of 210 major watersheds are included in RLLP, averaging approximately 10,000 hectares each. Out of these, 135 watersheds are those already targeted by SLMP-I and II. In these watersheds RLLP will implement only innovative climate resilient activities that were not included in SLMP. 57 watersheds included in RLLP are new to the implementation of (SLM) measures. For GCF financing, 40 watersheds out of 192 were identified based on their vulnerability to climate change[19]. The process for the selection of these new watersheds is described in full in Annex A.1.

In order to achieve the aims of the project – achieving restored, productive and low emission landscapes, the project will work with the communities that are using these landscapes. Hence, beneficiaries are selected at the community level and the direct beneficiaries are individuals who are living within a project watershed. The members of these communities are vulnerable smallholder farmers, who are very sensitive and highly exposed to climate change impacts. The total population within the project area is 4.2 million people or 834,000 households (with an average of 5 persons per household). Evidence based data driven implementation and planning will ensure that

[19] Details of Co-financing from Government of Canada were not available during this analysis, hence 18 Watersheds supported by it were not considered

interventions benefit smallholder farmers. Detailed bio-physical information for the 57 new watersheds, including individual landholdings, will be collected during the Multi-Year Plan (MYP) preparation of each watershed Local level participatory land use planning teams at woreda and kebele levels would ensure that interventions benefit the smallholder farmers. The baseline study report for 90 watersheds of SLMP II found that the average land holding was only 1.338 ha. Agro-ecologically, watersheds above the altitude of 2300 meters and lowland areas between 500 and 1500 meters, have an average land holding of only 0.83 ha and 2.082 ha respectively. Furthermore, about 4.2% of the households have no land at all (3.5% of male and 6.5% of female headed households), 10.6% have less than a quarter of a hectare and 21.9% less than a hectare.

Beneficiaries are categorized as direct and indirect. The direct beneficiaries are individuals who are living within a project watershed. The members of these communities are vulnerable smallholder farmers, who are very sensitive and highly exposed to climate change impacts. The primary beneficiaries of the project will be the rural households on degraded land, facing land tenure and water insecurity in selected watersheds. Indirect beneficiaries include: (i) communities adjacent to Project intervention areas adopting SLM and CSA practices through demonstration effects, as observed under SLMP-II; (ii) private sector participants and end-consumers in value chains targeted by the Project; (iii) households outside Project areas benefiting from the creation of land certification capacity at woreda and regional level; (iv) recipients of capacity building at all levels of government, as well as in national partner organizations; and (v) communities outside Project areas benefiting from groundwater recharge, reduced flooding, and lower sediment loads, as a result of SLM interventions. Women will be specifically targeted to ensure that they fully participate in Project benefits through a variety of mechanisms, including: (i) required participation of women in Community Watershed Teams (CWTs), Kebele Watershed Teams (KWTs), Kebele Land Administration and Use Committees (KLAUCs), and Watershed User Associations (WUAs); (ii) provision of joint land certificates to married couples, and individual land titles for women in Female-Headed Households; (iii) promotion of women's participation in Common-Interest Groups (CIGs) for income-generating activities; and (iv) targeted support for the production and marketing of improved cook-stoves, bringing health gains and time-savings that benefit women in particular. Make note that beneficiaries for Income generating activities are selected by the community watershed teams. The team has criteria for selecting such as the beneficiary should be the poorest of the poor, able to contribute to the project, refrain from doing negative harm to environment for example degradation of forest through charcoal making.

The experience of previous phases of the project has shown that there is a high willingness to participate by populations of the proposed intervention areas. The World Bank has tracked community contributions during the second phase of SLMP implementation. Translated into monetary terms, the cumulative community contribution in the four budget years from 2014/15 until 2018/19 was 23.5% of the total financial utilization of the project, equal to about USD 27 million. The most important contributions by the population were in the implementation of soil and water conservation measures on both communal land and farmland and community forest management.

The project components and activities are described below. Implementation will be guided by the recommendations and supporting studies that comprise the feasibility study. These documents provide guidance on which technology alternatives should be selected depending on local circumstances. Quantitative information on numbers of beneficiaries and areas benefiting from each activity, as well as a breakdown of funding between GCF and co-finance is provided in the detailed budget in Annex K.1.

B.4. Implementation arrangements (max. 1500 words, approximately 3 pages plus diagrams)

Provide a description of the project/programme implementation structure, outlining legal, contractual, institutional and financial arrangements from and between the GCF, the Accredited Entity (AE) and/or the Executing Entity(ies) (EE) or any third parties (if applicable) and beneficiaries.

- *Provide information on governance arrangements (supervisory boards, consultative groups among others) set to oversee and guide project implementation. Provide a composition of the decision-making body and oversight function, particularly for Enhanced Direct Access (EDA) proposals.*
- *Provide information on the financial flows and implementation arrangements (legal and contractual) between the AE and the EE, between the EE or any third party and beneficiaries. For EEs that will administer GCF funds, indicate if a Capacity Assessment has been carried out. Where applicable, summarize the results of the assessment.*
- *Describe the experience and track record of the AE and EEs with respect to the activities (sector and country/region) that they are expected to undertake in the proposed project/programme.*

Provide a diagram(s) or organogram(s) that maps such arrangements including the governance structure, legal arrangements, and the flow and reflow of funds between entities.

Detailed Project Institutional and Implementation Arrangements

The organizational structure and arrangements acceptable to the World Bank for the implementation of the recently completed SLMP-II will be maintained and strengthened for the execution of RLLP. Implementation will be carried out at four levels: Federal, Regional (including Zonal), Woreda (district) and Kebele (sub-district). and decisions in the meetings are subject to MoA concurrence.

The National SLM Steering Committee, chaired by the State Minister responsible for Natural Resources Management in MoA, comprises high level representation from MoF, MoWIE, MEFCC and DPs. The Steering Committee is responsible for the following tasks in the SLM project: (a) providing policy guidance, oversight and overall supervision for project implementation; (b) reviewing and approving the consolidated annual work plan, budget and procurement plan; (c) reviewing and approving the annual implementation performance report, and overseeing the execution of any corrective actions that may be designed.

The National SLM Technical Committee is also chaired by the State Minister responsible for Natural Resource Management in MoA. It is made up of senior technical staff from institutions such as MoA, MoWIE, MoF, MEFCC, MoWCA (Ministry of Women and Children Affairs, the Ethiopian Institute for Agricultural Research (EIAR), Cooperative Promotion Agency, development partners supporting SLM projects or initiatives, and civil society organizations (non-governmental organizations) actively engaged in SLM activities. Generally, this body is responsible for providing technical advice to MoA on SLM. Specific to RLLP, this Committee will provide technical advice on the quality of implementation performance reports and special studies such as policy and legislative drafts, financial and audit reports, documentation of best practices, and M&E reports.

The SLMP Project Coordination Unit (PCU) at MoA, which is staffed by 33 technical and fiduciary staff, will continue to play the role of managing and facilitating the day-to-day implementation of the project. Specific tasks will include: (a) consolidating regional annual work plans, budgets and procurement plans; (b) facilitating and supervising implementation of work plans and corrective actions, safeguards instruments including management/mitigation plans; (c) processing and procuring works, goods and services; (d) monitoring overall implementation progress, safeguards instruments (and management/mitigation plans) and evaluating project impacts; and (e) preparing progress reports. The Unit will maintain a team of experts including a National Project Coordinator, procurement and financial management specialists, M&E expert and technical experts in diverse disciplines (including watershed management, agronomy, forestry/agroforestry, land administration/land use planning, knowledge management & communication, livelihoods, private sector development).

Regional and Zonal level

Implementation of activities on the ground is supported by, among others, Regional steering and technical committees. The Regional Steering Committees will be accountable and responsible for the execution of the annual work plans developed by the local level implementers in the regions. At the Regional level, the Bureau of Agriculture (BoA) and the Bureau of Land and Environmental Protection (BoLEP) will lead implementation of the project in close collaboration with relevant public institutions. Serving as the link between the Federal, Zonal and Woreda implementation entities, the BoA will review and consolidate annual work plans, budgets, procurement plans submitted by the woredas. It will also review and approve implementation progress reports (including M&E, financial, audits, safeguards, etc.) originating from the woredas. The project will finance a project coordinator, M&E expert, accountant and procurement officer per region to assist the BoA and Woreda Office of Agriculture (WoA) to implement the project on a day-to-day basis. Together, these will form a regional Project Coordination Unit for each of the six Regions in which the project will be implemented (including Amhara, Oromia, Tigray, SNNP, Beneshangul/Gumuz, and Gambella). At the Zonal level, the Zonal Agriculture Office (ZAO) will provide technical support, extension services and M&E to a group of Woredas under its jurisdiction. The ZAOs will coordinate with the WoAs to discharge their responsibilities. Moreover, RLLP shall provide opportunities to zonal implementing entities to participate in the implementation of activities, draw lessons from the project and support scaling up of SLM practices to wider landscapes. In addition to the existing government staff, RLLP will contract technical advisors for specific outputs (such as preparation of MYDPs and WMUPs, establishment of WUAs, and preparation of business plans for IGAs and value chain linkages) in 29 zones where RLLP will be implemented.

Woreda and Kebele levels

On-the-ground planning and execution of activities under the project will be undertaken jointly by WOA, the Kebele Watershed Development Committee (KWDC), Development Agents (DAs) and communities. Accountants will be recruited at woreda level to improve financial management capacities and reduce implementation risk. Thus, WoAs, KWDCs and DAs will be assisting communities in: (a) developing annual work plans and budgets as well as procurement plans for submissions to the BoAs for review and endorsement and integration into a Region's annual work/development plans and budgets; (b) facilitating and mobilizing community participation in watershed planning and rehabilitation; (c) undertaking awareness campaigns and training; (d) participatory monitoring and evaluation; (e) extension service delivery and dissemination of best-fit technologies and innovations, etc. Implementation of Component 3, Rural Land Administration and Use, will be undertaken jointly by the WoLAU through the Kebele Administration Offices, the Kebele Land Administration and Use Committee (KLAUC), the land administration and use DAs and the communities.

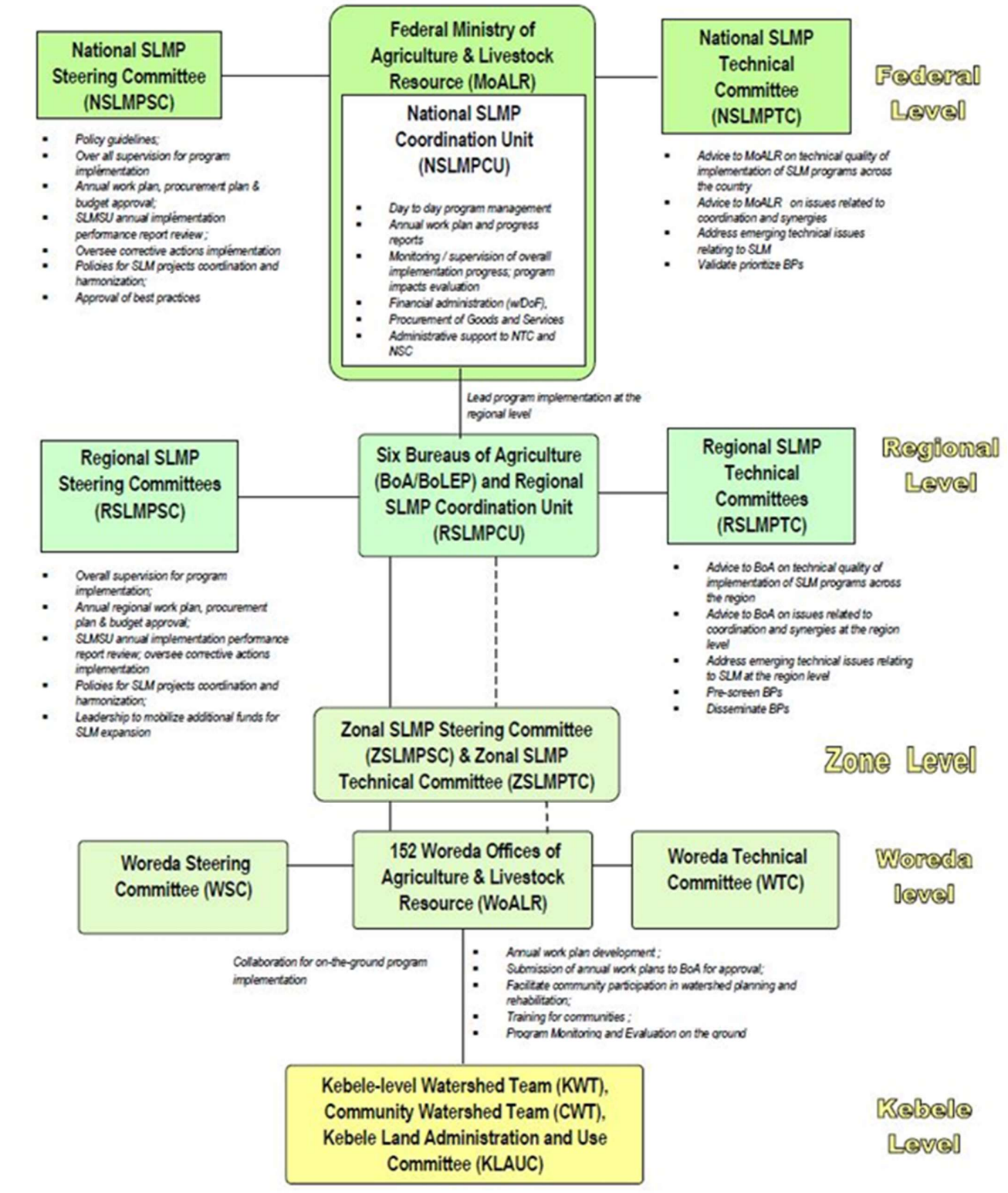

Figure 5 Implementation arrangements

The Project Implementation Manual (PIM) will set forth fiduciary requirements as well as project implementation arrangements. Importantly, the PIM will clarify the implementation support and supervision roles and responsibilities of the Regional Bureau of Agriculture (RBA), Woreda Office of Agriculture (WOA) and MoA. To enhance the accountability and quality of deliverables and the functionality of the program coordination platform at regional and woreda levels, project implementation arrangements acceptable to the WB and agreed by the MoA and regional governments will be established to clarify accountability and targets at all levels of project implementation. . This text is now added in FP in this section after Figure 5.

Roles and responsibilities of the World Bank

The World Bank as the Accredited Entity of the project will play an important role in programme supervision and implementation. The WB will ensure that the RLLP is executed in line with the WB policies and procedures. The WB's roles and responsibilities regarding financial management and procurement are described below. More detail, including a disbursement plan, is provided in section F.4. Financial Management and Procurement.

Financial management

Payments will be based upon an approved annual work plan and budget. To ensure transparency as well as to enhance the level of disbursement under the RLLP, quarterly Interim Financial Reports (IFRs) follow international reporting standards and are submitted promptly at the end of each quarter.

An external audit of the project will be conducted annually by the Supreme Audit Institution or an accredited private audit firm. The audit will be conducted in accordance with Terms of Reference prepared by the EE and the objective of the audit will be to ascertain whether project funds have been used for the intended purpose. The WB, as the AE, is responsible for reviewing and providing a no objection for the recruitment of the auditor including no objection of the ToR. The WB will verify that the audit is conducted in accordance with the International Standards on Auditing and that appropriate actions based on the findings ensue. If necessary, the WB will issue corrective actions throughout the execution of the RLLP.

The GCF Proceeds will be channeled through the World Bank and will be made available to the Federal Democratic Republic of Ethiopia. The World Bank will enter into a grant agreement and a loan agreement with Ethiopia, represented by MoF and acting through MoA for the implementation of the GCF Funded Activity. MoA is responsible for overall Project implementation and accountable for the Funded Activity's outcome indicators.

MoA will be working closely with MoF, the Ministry of Environment, Forest and Climate Change (MEFCC), the Ministry of Water, Irrigation and Energy (MoWIE) and other relevant public sector agencies. Project implementation is according to signed financing agreement(s) (Subsidiary Agreement(s)), procurement procedures, environmental & social management framework and other applicable WB procedures. The WB's project supervision covers monitoring, evaluative review, reporting, and technical assistance activities.

Procurement

As the AE, the World Bank is responsible for ensuring that MoA has the necessary procurement capacity required for the RLLP. To this end, The WB has conducted a procurement capacity and risk assessment of MoA (see Annex L.1). The WB will be responsible for ensuring that procurement under the project will be carried out in accordance with the WB's Procurement Procedures.

Communities and individuals receive cash payments as an incentive to contribute labor in support of rehabilitation works under sub-component 1.1 and 1.2. 41 ETB per Person Day (PD) is provided as labor incentive for participation in rehabilitation work. RLLP will pay 20% of this labor incentive for rehabilitation work on private land and 50% for rehabilitation work on communal land. The distribution of rehabilitation work needed across both types of land cannot be determined Ex-Ante. However, if we consider an equal distribution for estimation purposes, it means that RLLP will pay for 35% of the labor incentive. Based on this, we estimate that **RLLP will pay in total USD 40.4 million as labor incentive**. The total number of beneficiaries in watersheds where rehabilitation work will be undertaken is 3.27 million. Based on previous SLMP experience, typically 3 members out of 5 from each household participate in rehabilitation work. This translates to **1.96 million beneficiaries receiving labor incentive**

under RLLP. Thus, the **estimated amount of labor incentive paid per beneficiary by RLLP will be USD 20.61**. Please note that these are **indicative estimates and may vary during implementation due to inflation and operational factors such as participation of beneficiaries and change in intensity of rehabilitation work due to extent of land degradation**. We confirm that the activities under which labor incentive is provided are sub-components 1.1 and 1.2.

B.5. Justification for GCF funding request (max. 1000 words, approximately 2 pages)

Explain why the project/programme requires GCF funding, i.e. Why is the project/programme not currently being financed by public and/or private sector? Which market failure is being addressed with GCF funding? Are there any other domestic or international sources of financing?

Explain why the proposed financial instruments were selected in light of the proposed activities and the overall financing package. i.e. What is the coherence between activities financed by grants and those financed by reimbursable funds? How were co-financing amounts and prices determined? How does the concessionality of the GCF financing compare to that of the co-financing? If applicable, provide a short market read on the prevailing of the pricing and/or financial markets for similar projects/programmes.

Justify why the level of concessionality of the GCF financial instrument(s) is the minimum required to make the investment viable. Additionally, how does the financial structure and the proposed pricing fit with the concept of minimum concessionality? Who benefits from concessionality?

In your answer, please consider the risk sharing structure between the public and private sectors, the barriers to investment and the indebtedness of the recipient. Please reference relevant annexes, such as the feasibility study, economic analysis or financial analysis when appropriate.

In terms of the requirement for GCF funding, there are two types of interventions in this project.

The first type of intervention involves scaling up demonstrated measures for SLM. In past activities, WB and the GoE have laid the foundations for sustainable agricultural production and improvement of livelihoods. SLMP-I and SLMP-II program activities have proved to be successful in restoring degraded lands and significant lessons have been learned for further improvement of activities in the future.

With over 95% of agriculture output generated by smallholder farmers with average farm sizes between 0.5 and 2 hectares, the agricultural sector does not yet have the means to fund the introduction of SLM in all degraded watersheds without concessional funding. The Ethiopian government is investing heavily in climate change adaptation. Between 2007 and 2013, the government's total investment in agriculture was around $1.1 billion, of which around 40% ($0.4 billion) was from within the federal budget of the Ministry of Agriculture. 60% of the federal budget ($0.3 bn) was spent on resilience activities related to addressing key climate risks. Around 80% of current resilience spending ($0.2 bn) is on protecting the most vulnerable people in society through a program of safety nets that provide income support and social assistance. However, due to the significant impacts of climate change expected in Ethiopia and the vulnerability of most of the population, this investment will not be sufficient and GCF funding is required to fully finance the incremental costs of climate change adaptation.

The government of Ethiopia has been investing successfully in the development of SLM. SLM practices address both the short-term (erosion control, flood control) and the long-term goals of the government, which are part of efforts to rehabilitate degraded areas through soil and water conservation measures. However, national resources are insufficient to fund the remaining SLM investments required and additional funding is needed to finance the required interventions in degraded watersheds. To date, the World Bank has supported these interventions through concessional IDA credit. The loans requested from GCF for these investments are of a similar level of concessionality as the IDA Credit. Highly concessional funding is appropriate due to Ethiopia's status as a Least Developed Country with a GDP per capita of $707 in 2017. In addition to SLM investments, GCF funding will also be used to mitigate the risk and overcome the barrier of limited capacity to scale up the current coverage of SLM activities. This risk includes the limited human resources to support beneficiaries in the planning and

implementation of complex interventions, the challenge of implementing a cost-effective M&E system, and the need to strengthen coordination among institutions, sectors, programs and projects.

The GCF highly concessional funding, along with additional financing from IDA, MDTF and GoE, would build upon previous SLM practices, taking into account lessons learned and introducing new activities in order to achieve landscape restoration and establish green corridors. Activities would include land use rationalization, intercropping, low tillage, gully reclamation, establishing grazing corridors, watering points and wells, and sylvo-pastoral strategies. Large-scale landscape restoration is only achievable through GCF co-financing due to the nature and scale of the needed investments. Land restoration lays the foundations for increased resilience to climate change and mitigation capacity while it enables agricultural production.

The second type of intervention for which GCF funding is requested is that of measures intended to encourage the adoption of Climate Smart Agriculture (CSA) practices and the development of strong value chains associated with livelihoods based on SLM and CSA. By strengthening value chains linking livelihoods based on SLM and CSA practices with the private sector, activities funded by GCF will contribute to the development of sustainable livelihoods, providing incentives for maintaining SLM and CSA practices.

If correctly implemented, CSA helps increase yields while building farmer resilience and contributing to the achievement of the NDC and several SDGs. Thus, CSA jointly addresses food security and climate change adaptation and mitigation. The determining factors for effective CSA outcomes are the combination of practices such as minimum tillage, crop residue management and crop rotation and intercropping. Challenges remain in the implementation of this combination of practices, such as the need for a change of mindset of farmers, extension workers and policy makers, competition for crop residue, lack of cover crops and lack of suitable technologies. Concessional funding is needed in order to remove these barriers and create a culture and knowledge base within which CSA can continue to be promoted by the extension services and implemented by farmers in future.

Without GCF involvement, Ethiopia cannot finance the proposed interventions. The national Climate Resilient Green Economy strategy has called for annual spending of $7.5 billion to respond to climate change. With national budgetary resources for climate-change relevant actions estimated to be in the order of $440 million per year and international sources contributing tens of millions of dollars per year, there is a major financing gap. Poor access to credit, high lending rates and an insufficient budget are not conducive to the investments required for handling local climate change impacts. In addition, Ethiopia's Debt Sustainability Assessment recently changed the risk of debt distress to high. Thus, GCF concessional financing, including a high degree of concessionality, is needed to ensure improved resilience to climate change impacts and food security in Ethiopia.

Public goods include: management of communal land; externalities from soil erosion; and water-insecurity (risk of droughts and floods). Market failures are found in the incomplete markets associated with: land-insecurity (lack of defined land ownership); water-insecurity; and soil loss.

Improving management of non-cropland areas under communal use requires a public good approach. Livestock grazing and firewood collection leads to deforestation and soil erosion on these communal lands (e.g. non-crop land). Using private investments to improve resource management on communal lands is not possible unless all costs and benefits can be internalized to a well-defined and functioning group of beneficiaries. Watershed management is one approach to this, but it requires long-term public investments and capacity building beyond what the private sector can do in the short term.

Soil erosion may lead to impacts outside the watershed management area (externalities). This means that costs and benefits from the investment will be accrued by people outside the project area. There is no functioning market for internalizing downstream negative effects and solving them with private sector investments or loans. Public sector investment is required.

Water-insecurity (risk of droughts and floods) are exacerbated by poor water/land management as well as climate change. There are no functioning markets for pricing water and impacts of disasters especially if the future holds greater risks. This is a market failure that requires public investments due also to the long-term solutions required to improve resource management.

The impact of poor soil management is felt by farmers and downstream beneficiaries, but there is no market value put on soil or the loss of soil. The solutions to reducing soil erosion require investments as well as short-term loss of income and food production while benefits accrue in the long term. Some benefits will also accrue externally to the project area. This is a market failure. In addition, the lack of land security prevents private sector investments from being realized due to increased risk from unclear property rights. Providing land security is a public responsibility.

Without land-, water- and soil-security no amount of private investment can ensure sustainable resource management in the future. This fits neatly with GCF's stated innovation is to use public investment to stimulate private finance. The incremental net benefits in the 40 watersheds at most risk from climate change target already poor and vulnerable populations. The grant proportion is justified compared to a loan because the net benefits are not expected to improve the fiscal position of the GoE including no additional tax revenue from these populations.

Without the Project intervention, beneficiaries both in the area and downstream will continue to struggle to establish or maintain their livelihoods and it is expected that without the Project, land use will continue on its current path. Continued soil erosion, water insecurity, and land insecurity leads to land degradation with direct losses to those that rely on crop and livestock production and related industries for their livelihood. Production yields will go down or farmers will have to increase their input costs, on e.g. fertilizer, to maintain current yields. In the absence of storage facilities, farmers will continue to experience post-harvest losses. They will also be unable to capture higher crop prices that are only obtainable a few months after harvest and in larger markets. Non-agricultural land in the watershed will also continue to deteriorate without the Project due to soil erosion and overuse of common land through grazing livestock and firewood collection. This will put a further strain on the population who derive their livelihood from forests, woodlands, and surrounding areas. Downstream from the project area, continued land degradation will also affect areas and households through increased flood risk and sedimentation of irrigation dams.

Figure 6 illustrates how this analysis assumes a declining production without Project interventions due to soil erosion. With Project interventions the yield loss is avoided and, for some production systems (crops, livestock, and grassland), with-project yields increase over time. This yield increase is attributed to adoption of improved cultivars, improved seeds, better animal breeds, land restoration, water management, and implementing climate smart agricultural techniques. The sum of the two shaded areas in the Figure constitute the incremental benefit

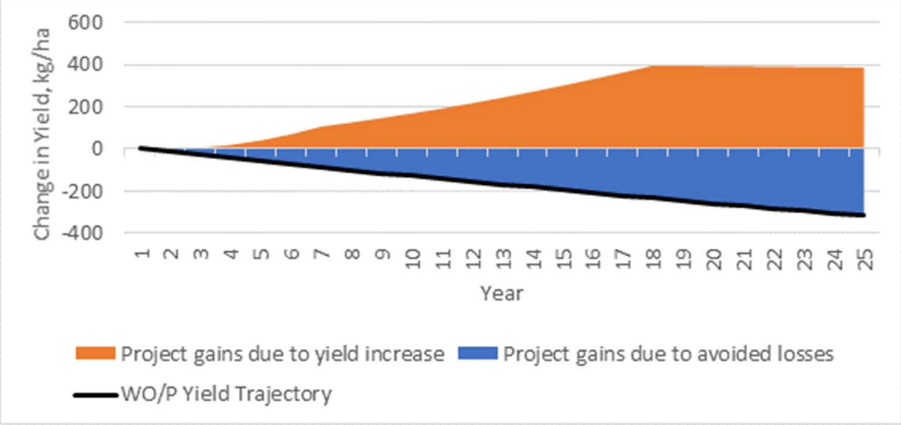

Figure 6 Illustration of incremental benefits

B.6. Exit strategy and sustainability (max. 500 words, approximately 1 page)

Explain how the project/programme sustainability (financial, institutional, social, gender equality, environmental) will be ensured in the long run after project closure, including how the project's results and benefits will be sustained.

Include information pertaining to the longer-term ownership, project/programme exit strategy, operations and maintenance of investments (e.g. key infrastructure, assets, contractual arrangements). In case of private sector, please describe the GCF's financial exit strategy through IPOs, trade sales, etc.

Provide information on additional actions to be undertaken by public and private sector or civil society as a consequence of the project/programme implementation for scaling up and continuing best practices.

The project will seek to ensure the long-term maintenance of restored landscapes through (i) an emphasis on strengthening the value chains associated with sustainable agricultural practices in restored watersheds, designed to build incentives for local communities to continue SLM practices, (ii) a focus on the provision of land-holding certificates, to encourage investment in long-term landscape productivity, and (iii) policy an implementation support for the establishment of watershed associations, combined with capacity building of local governments, to provide a durable institutional framework SLM. For value chain connections including CSRPs – these investments will be made through CIGs and cooperatives based on business plans that will include the identification O&M costs and the revenues necessary to cover them, that will be generated through the connections to value chains

GCF funding will be used to enhance the climate resilience of and add innovative elements to the government's ongoing SLM program. Strong government ownership ensures long-term commitment to the promotion of SLM and CSA practices, as part of the broader national goals of enhancing agricultural productivity, building resilience to climate change, and achieving a carbon neutral economy. Specifically, MoF and MoA are committed to scaling up and enhancing the success of the Government's proven flagship SLM Program. Beyond this national commitment, a particular focus of the RLLP is providing support for watersheds to graduate from development partner assistance for SLM, such that maintenance of restored landscapes and CSA will become mainstreamed into local community practices and local government functions. Component 2 of the proposed project will create institutions and build capacity that will enable the CSA interventions to be sustainably implemented in watersheds that graduate from project-based support. Spillover effects of successful SLM interventions have already been observed under the ongoing program. For example, CSA pilot watersheds have been visited by farmers and extension workers from adjacent areas and replicated through the government extension system. In addition to this spillover effect, the RLLP will provide four specific forms of support for the graduation of watersheds:

- First, the principal emphasis of policy development under RLLP will be the establishment of a regulatory framework for the creation of watershed associations, bringing together all stakeholders in restored watersheds. This initiative will build on a pioneering effort in the Regional State of Amhara and will draw on international best practice in this regard. In addition to providing the institutional framework required for maintenance and further investment in SLM, the establishment of watershed associations is also designed to leverage possible new sources of funding for SLM. This includes funding through Payment for

Ecosystem Services (PES), such as payments for sustainable watershed management to deliver downstream benefits, for example by reducing flooding and sediment loads affecting hydrological infrastructure (such as reservoirs for hydro-electric power generation), as well as payments for groundwater recharge from private sector entities dependent on reliable water supply;

- Second, support for capacity building and information modernization under RLLP will emphasize building permanent capacity in local governments to plan, implement and manage investments in SLM and CSA;
- Third, the focus of RLLP on strengthening value chains associated with livelihoods based on SLM and CSA practices is designed to strengthen incentives for communities and local governments to maintain and expand these initiatives;
- Fourth, in Component 3 support for land-holding certification will help secure land tenure for smallholders, enhancing income opportunities and promoting resilient livelihoods in the long term. Land tenure provides incentives to maintain restored landscapes, to abandon destructive practices such as free grazing, and to persevere with CSA practices.

Measures that will be taken to enhance institutional capacity for implementation and sustainability are: (i) continual training on project management and monitoring at all levels, in coordination with the GIZ SURED project; (ii) project implementation arrangements acceptable to the World Bank and agreed by the MoA and regional governments clarifying accountability and targets at all levels; and (iii) coordination between development partners Technical Committee on SLM.

Sustainability will be ensured through the creation of exit strategies for each participating watershed, based on the guideline *Exit Strategy and Performance Assessment for Watershed Management (ESPAWM)* (see Annex L.3.), which also covers operation and maintenance (O&M). Annex 1 of the ESPAWM provides a sample framework for a watershed-specific exit strategy, including activities and milestones specifically for highland water and land management projects in Ethiopia. This framework includes the development of an O&M plan for all infrastructure financed by the project. Annex 1 of the ESPAWM includes pointers on ensuring the O&M of community service facilities, which have not been considered as a part of watershed development plans in the past, and consequently not covered in O&M plans. Annex 1 also indicates the importance of establishing utilization arrangements for springs/shallow wells, guarding, user fees, community-level trainings for O&M and O&M of introduced improved farm machinery.

By the end of the project period, all watersheds included in the project are expected to have completed a Multi-Year Development Plan (MYDP) and those already supported under SLMP will receive assistance to graduate from project-based support for SLM. To help ensure the sustainability of the SLM interventions, the Project will provide support for the creation of Watershed User Associations (WUAs) in each graduating watershed to replace the project-based Community Watershed Teams (CWTs) and Kebele Watershed Development Committees (KWDCs) with a legally recognized institution for the ongoing planning and management of the watershed.

Watershed Management and Use Plans (WMUPs) adopted by WUAs will detail management and use for graduating watersheds, outlining agreements to conserve and utilize the resources and establishing bylaws for managing and implementing conservation activities and the distribution of benefits. The development of these WMUPs is critical to ensure land resources are used and managed in a way that enhances absorptive and adaptive capacity to climate change, promoting resilience broadly at the landscape level.

Ongoing monitoring of the success of SLM and CSA will be ensured at the local level through the RLLP's support for information modernization as part of local government capacity building. At the national level, the involvement of MoA and national research organizations in the impact evaluation, knowledge management and communication

sub-component will help ensure long-term commitment to monitoring, evaluating and improving the performance of these initiatives.

The loan component of the GCF financing will be provided on similar concessional terms as IDA financing, and repayments will be managed by the Government of Ethiopia through similar mechanisms.

C. FINANCING INFORMATION

C.1. Total financing

(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount	Currency
	165.24	million USD ($)

GCF financial instrument		Amount	Tenor	Grace period	Pricing
(i)	Senior loans	107,174,255	40 years	10 years	0 %
(ii)	Subordinated loans	Enter amount	Enter years	Enter years	Enter %
(iii)	Equity	Enter amount			Enter % equity return
(iv)	Guarantees	Enter amount	Enter years		
(v)	Reimbursable grants	Enter amount			
(vi)	Grants	58,063,337			
(vii)	Results-based payments	Enter amount			

(b) Co-financing information	Total amount	Currency
	131	million USD ($)

Name of institution	Financial instrument	Amount	Currency	Tenor & grace	Pricing	Seniority
IDA	Senior Loans	100	million USD ($)	36 years 5 years	0%	senior
Ethiopia Resilient Landscapes and Livelihoods multi-donor trust fund ("MDTF"), administered by the World Bank as Trustee	Grant	31	million USD ($)	Enter years Enter years	Enter%	Options
Click here to enter text.	Options	Enter amount	Options	Enter years Enter years	Enter%	Options

(c) Total financing (c) = (a)+(b)	Amount	Currency
	296.24	million USD ($)

(d) Other financing arrangements and contributions (max. 250 words, approximately 0.5 page)

Please explain if any of the financing parties including the AE would benefit from any type of guarantee (e.g. sovereign guarantee, MIGA guarantee).

Please also explain other contributions such as in-kind contributions including tax exemptions and contributions of assets.

Please also include parallel financing associated with this project or programme.

C.2. Financing by component

Please provide an estimate of the total cost per component and output as outlined in section B.3. above and disaggregate by source of financing. More than one co-financing institution can fund a single component or output. Provide the summarised cost estimates in the table below and the detailed budget plan as annex 4.

Component		GCF financing	Co-financing	Co-financing

	Indicative cost million USD ($)	Amount million USD ($)	Financial Instrument	Amount million USD ($)	Financial Instrument	Name of Institutions	Amount million USD ($)	Financial Instrument	Name of Institutions
Component 1. Green Infrastructure and Resilient Livelihoods	222.5	57.51	Grants	65	Senior Loans	IDA	15.5	Grants	MDTF
		85.49	Senior Loans						
Component 2. Investing in Institutions and Information for Resilience	29.65	16.15	Senior Loans	6			7.0		
Component 3. Rural Land Administration and Use	26	0		20			6		
Component 4. Project Management and Reporting	18.09	0.49	Grants	9			2.5		
		5.60	Senior Loans						
Indicative total cost (USD)	**296.24**	**165.24**		**100**			**31**		

This table should match the one presented in the term sheet and be consistent with information presented in other annexes including the detailed budget plan and implementation timetable.

In case of a multi-country/region programme, specify indicative requested GCF funding amount for each country in annex 17, if available.

Component	Sub-component	GCF funding (USD)	IDA (USD)	MDTF (USD)
Component 1. Green Infrastructure and Resilient Livelihoods	Sub-component 1.1. Land Restoration and Watershed Management	100,000,000	49,000,000	6,941,189
	Sub-component 1.2. Climate Smart Agriculture	15,000,000	10,000,000	8,462,561
	Sub-component 1.3. Livelihood Diversification and Connection to Value Chain	28,000,000	6,000,000	96,250
Component 2. Investing in Institutions and Information for Resilience	Sub-component 2.1. Capacity building, information modernization and policy development	16,149,572	3,000,000	4,879,380
	Sub-component 2.2. Impact Evaluation, Knowledge Management and Communication	0	3,000,000	2,120,620
Component 3. Rural Land Administration and Use		0	20,000,000	6,000,009

Component 4. Project Management and Reporting		6,088,020	9,000,000	2,500,001
Total (excluding Accredited Entity Fee)		**165,237,592**	**100,000,000**	**31,000,010**

Total project financing includes the following sources of co-financing:

- International Development Association (IDA) loan: $100,000,000 concessional loan from IDA.
- Multi-donor trust fund (MDTF) grant: $19,000,000 from Norway and $12,000,0000 from Canada. Donor contributions to the MDTF are in the respective currencies of the donor and are expected in tranches over the life of the RLLP. Donor contributions to the MDTF are translated to United States dollars when the World Bank receives the funds.

Grant vs Loan

The GCF loan will be applied across all sub-components funded by GCF except for some specific activities in Sub-component 1.1 and Component 4 where GCF grant will be applied. Based on GCF's feedback emailed on November 18th, GCF stated that the grant portion should be in support of activities directly linked to the climate benefits. Accordingly, considering the direct carbon sequestration associated with the set of activities and the need to build gender-responsive resilience, following activities, listed below with their indicative estimates in brackets (actual request is rounded off to $58 million), were selected for GCF grant funding:

Sub-component 1.1

- Construction of physical soil and water conservation measures on communal lands including degraded hillside, shrub land and pastureland ($26,080,515)
- Pitting and planting of multi-purpose trees on degraded lands ($12,922,858)
- Establishment of model plantation blocks with native tree species ($2,268,510)
- Post plantation management of planted trees on communal lands ($ 15,856,773)
- Grass seeds for pastureland development ($ 450,313)

Component 4

- Gender mainstreaming ($ 484,368)

GCF loans are treated like IBRD/IDA loans and will be repaid in parallel following a repayment schedule to be negotiated with GCF at Term Sheet and FAA stage. GCF loan is senior and not sub-ordinated.

C.3 Capacity building and technology development/transfer (max. 250 words, approximately 0.5 page)

C.3.1 Does GCF funding finance capacity building activities?	Yes ☒ No ☐
C.3.2. Does GCF funding finance technology development/transfer?	Yes ☒ No ☒

If the project/programme is expected to support capacity building and technology development/transfer, please provide a brief description of these activities and quantify the total requested GCF funding amount for these activities, to the extent possible.

Component 2. Investing in Institutions and Information for Resilience

Activities will be funded by IDA and MDTF in watersheds identified for IDA funding (budget of USD 13.0 million) and by GCF in watersheds identified for GCF funding (budget of USD 16.15 million).

The objective of this component is to enhance institutional capacity and improve information for better decision-making in supporting resilient landscapes and diversified rural livelihoods in the project area, both for the duration of the project and after project completion.

This component will build capacity at the local government level (woreda and kebele) for (i) planning and managing SLWM interventions, and (ii) managing the land certification process. This will include piloting of new technologies for information modernization at the local level, including the use of electronic tablets for gathering geospatial information, and the use of Unmanned Aerial Vehicles (UAVs – or drones) for land certification mapping. Tablets and UAVs will be the property of the project (i.e. MoA) and would be provided to development agents and the woreda focal persons in the project watersheds for mapping and monitoring. The device setup, training, and support provided will be tailored to meet the conditions and realities faced in field environment (i.e. off-line data collection, accessories (protective case, solar charger, etc.), guidance materials, technical and trouble-shooting support).

Support for policy development under this component will focus on the regulatory framework for Watershed User Associations (WUAs), community bylaws guiding land-use practices, and strengthening the Land Administration System. This regulatory framework, once established, will continue to support resilient land use after project completion. To strengthen the evidence base for sustainable land management decision-making, this component will include a bio-physical impact evaluation of SLWM interventions, to be conducted through a partnership arrangement between the MoA, the Water and Land Resource Centre of Addis Ababa University, and the Ethiopia Development Research Institute's Environment and Climate Research Center. This will complement a livelihoods impact evaluation of SLWM interventions to be conducted in parallel led by the Gender Innovation Lab of the World Bank's Africa Region. When completed, these evaluations will be available to interested parties in Ethiopia and the region wishing to institute or improve SLWM. This component will also provide resources to manage the knowledge generated through these and other assessments of SLWM, and to communicate the lessons learnt to a broad audience, including local governments and communities, relevant research institutions and Government agencies, as well as Development Partners.

This component's objectives will be achieved through the implementation of the following sub-components: (i) capacity building, information modernization and policy development, and (ii) impact evaluation, knowledge management and communication.

Sub-component 2.1. Capacity Building, Information Modernization and Policy Development

This sub-component will build capacity at local government level to implement RLLP, and to sustain SLWM interventions after watershed graduation from project-based support. To achieve this, the sub-component will finance accountants to support the head of the Woreda office of Agriculture (WoA) and a focal person in each participating woreda, and part-time community facilitators at the kebele level (5 community facilitators for in each major watershed). To help build the capacity necessary for an effective land administration system, this sub-component will also provide technical assistance for training in this field.

This sub-component will support information modernization to coordinate data collection and information sharing at all levels and under all components of the project so that this information is well organized, properly documented and accessible. As part of this effort, a data management plan will be developed that specifies how all data used or created during the course of RLLP will be documented, stored and otherwise managed. The use of electronic tablets to collect information on project activities and results, combined with appropriate survey and mapping software, will

improve the quality and timeliness of data collection and reduce the effort needed to compile, review, and generate the necessary reports. This framework will facilitate access to information and support timely feedback to the local level.

This sub-component further supports the use of aerial vehicles (UAVs)/drones to generate high-quality and timely aerial imagery data to support planning, monitoring, and land certification. Under this initiative, the drones will be operated by several teams of trained operators who will travel to the project sites. During the course of RLLP each micro-watershed will be re-visited twice each year at appropriate intervals to generate visual and multi-spectral images of the program areas. At each stage the processed imagery will be shared with the woreda and local field staff for the purpose of assisting in planning, monitoring progress and updating implementation plans. The data and materials produced will also be used to support M&E and will serve as a source of information and data for subsequent analysis. Detailed technological specifications and budget have been elaborated including the technical requirements for the drones, all associated equipment and spare parts, operating costs for the duration of the project. The use of the drones is intended for the collection of information and data that will be available for long-term use and for project planning and monitoring. The project will work with the Information Network Security Agency (INSA) and the Ethiopian Aviation Authority to ensure all necessary permits are obtained.

Policy development under this sub-component will focus on the regulatory framework required for the establishment of Watershed User Associations (WUAs), crucial for sustainability of SLWM interventions, frameworks for reward and incentive schemes such as Payments for Environmental Services (PES), as well as community byelaws guiding land-use practices, and strengthening of the Land Administration System.

In developing the framework for WUAs, the Project will work closely with regional governments for its application in establishing WUAs. This work will commence with reviewing of the environmental legislation that relates to the use and management of Ethiopia's natural resources (soils, forestry, grassland, water, wildlife, etc.). The manual for CSA will be used to proceed and enhance this activity. RLLP will give high attention to the opportunities of engagement of private sector (PS) in all development activities of the project. The first objective of PS engagement in RLLP is, to attract the PS to invest in RLLP interventions. The second objective is to create and increase income streams & diversified livelihoods for the communities in a sustainable manner through the promotion of inclusive business and value chain/partnership relationship based on profitability principles.

Sub-component 2.2 Impact Evaluation, Knowledge Management and Communication

Impact evaluations (IEs) will use rigorous research methods to look at specific interventions under RLLP, assess the contribution of these to development goals and provide robust evidence of SLM impact. Project funding will focus on the evaluation of bio-physical impacts, which will be conducted in coordination with a livelihoods impact evaluation to be led by the Gender Innovation Lab of the World Bank's Africa Region, financed separately. The bio-physical impact evaluation will examine the response of the environment to SLWM interventions, considering parameters such as peak and base surface water flows, groundwater levels and recharge rates, sediment loads, and remotely sensed information on vegetation cover and soil moisture. For the purposes of this evaluation, the project will extend the existing partnership between MoA, the Water and Land Resource Center of Addis Ababa University, and the Environment and Climate Research Centre of EDRI, and will aim to build new partnerships with relevant international research organizations.

In addition to the bio-physical IE and the livelihoods IE an evaluation of climate-smart agriculture will also be conducted. Due to the complexity of the evaluations the details of their implementation are still under development. Basic design of the IEs is expected to be as follows: the livelihoods IE is expected to involve random assignment. The biophysical IE will involve a 2-stage sampling where in the first stage a stratified selection of watersheds to be treated will be performed and in the second stage watersheds will be paired with a suitable comparison watershed (outside project watersheds). This is being done to increase the explanatory power of the evaluation given the large cost associated with each watershed monitored. The CSA evaluation is expected to follow a treatment-control comparison methodology and the potential for randomized assignment within the CSA micro-watersheds is being explored. In any case, the sampling of treatment and control will be randomized.

To build a solid and effective knowledge management system both for the project and the SLM program in Ethiopia, this sub-component will establish a geospatial knowledge platform that combines information from a variety of project and other sources and packages it in a format that is accessible to planners and stakeholders at the national, regional, and local levels. This activity will build upon the work being done by WLRC under SLMP II to develop a web-

based knowledge management system. By enabling farmers to improve their planning the platform will decrease their exposure to climate change related risks.

A strategic communication program will be developed and implemented under this sub-component to inform and mobilize communities, enhance project visibility and transparency among all actors, support efforts to scale-up SLM and CSA practices, and build support for the land certification program. Strategic guidelines for the implementation of the Knowledge Management and Communication (KMC) program have been developed following a rapid KMC needs assessment. The guidelines include viable options of knowledge management, knowledge sharing and communication with effective channels, techniques, tools and key messages that address the communication and knowledge management needs of beneficiaries, stakeholders, partners and actors at various level. While following those guidelines, implementers will have room to elaborate, modify and adapt additional communication and knowledge management interventions to meet the overarching goals and specific objectives outlined in this sub-component. The identified overarching goals are: 1) to build and coordinate a strong knowledge base contributing to the effective promotion, reporting and scaling up of SLM within Ethiopia; and 2) to inform and mobilize local communities, strengthen consultation/ participatory development models, and enhance transparency in program-supported activities. The specific objectives of the KMC program are to: a) Support scaling up efforts and adoption of SLM and CSA practices; b) Help evidence based planning and reporting through enhanced information flow among institutions and coordination of monitoring and evaluation; c) Enhance the program visibility among all actors thereby attract new development partners and insure the buy-in of the government; d) Sustain the outcomes of SLM practices through awareness raising campaigns. This includes relevant activities in components 1 and 3 such as land certification. The guidelines include means of verification to evaluate the effectiveness of the activities implemented within the KMC program.

Possible activities include:

i. knowledge identification, capturing, validation and packaging annually to support scaling up efforts, build capacity of user groups, youth groups, DAs and FTCs (experiential knowledge, best practice and synthesis of explicit knowledge products from various sources such as the geo-spatial knowledge platform, the CSA Innovation Platform, model watershed, etc.);
ii. strengthening and enhancing functionality of existing FTCs and SLM information centers at woreda level and establishing info centers in new woredas;
iii. outreach activities (i.e. production of printed, audio and video materials to be used as supporting tools during workshops and events, and media tours for journalists and PR officers of relevant regional bureaus to show project results);
iv. knowledge sharing/networking events (i.e. annual SLMP Knowledge fair); and
v. advocacy activities to support private sector engagement, policy development and other key initiatives for RLLP effective implementation (i.e. organization of Stakeholders Workshops).
vi. grassroots level behavioral change campaign targeted to major/critical watersheds, based on preliminary research to define appropriate media (drama, storytelling, etc.) and effective messengers (i.e. community/religious leaders) and gauged throughout the duration of the program through a mix of qualitative/quantitative research methods (FGDs, community level meetings, survey);
vii. public information awareness activities on land registration and cadastral surveys, land laws and procedures and conflict resolution mechanism, and to explain the benefits of (formalized) rentals and unlock the blockage set by cultural norms, emphasizing that temporary land renting does not imply abandonment and formalized rental contracts do not result in land being expropriated.

D.EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's Initial Investment Framework.

D.1. Impact potential (max. 500 words, approximately 1 page)

Describe the potential of the project/programme to contribute to the achievement of the Fund's objectives and result areas. As applicable, describe the envisaged project/programme impact for mitigation and/or adaptation. Provide the impact for mitigation by elaborating on how the project/programme contributes to low-emission sustainable development pathways. Provide the impact for adaptation by elaborating on how the project/programme contributes to increased climate-resilient sustainable development. Calculations should be provided as an annex. This should be consistent with section E.2 reporting GCF's core indicators.

In terms of the requirement for GCF funding, there are two types of interventions in this project. The first type of intervention involves scaling up demonstrated measures for SLM. In past activities, WB and the GoE have laid the foundations for sustainable agricultural production and improvement of livelihoods. SLMP-I and SLMP-II program activities have proved to be successful in restoring degraded lands and significant lessons have been learned for further improvement of activities in the future.

With over 95% of agriculture output generated by smallholder farmers with average farm sizes between 0.5 and 2 hectares, the agricultural sector does not yet have the means to fund the introduction of SLM in all degraded watersheds without concessional funding. The Ethiopian government is investing heavily in climate change adaptation. Between 2007 and 2013, the government's total investment in agriculture was around $1.1 billion, of which around 40% ($0.4 billion) was from within the federal budget of the Ministry of Agriculture. 60% of the federal budget ($0.3 bn) was spent on resilience activities related to addressing key climate risks. Around 80% of current resilience spending ($0.2 bn) is on protecting the most vulnerable people in society through a program of safety nets that provide income support and social assistance. However, due to the significant impacts of climate change expected in Ethiopia and the vulnerability of most of the population, this investment will not be sufficient and GCF funding is required to fully finance the incremental costs of climate change adaptation.

The government of Ethiopia has been investing successfully in the development of SLM. SLM practices address both the short-term (erosion control, flood control) and the long-term goals of the government, which are part of efforts to rehabilitate degraded areas through soil and water conservation measures. However, national resources are insufficient to fund the remaining SLM investments required and additional funding is needed to finance the required interventions in degraded watersheds. To date, the World Bank has supported these interventions through concessional IDA credit. The loans requested from GCF for these investments are of a similar level of concessionality as the IDA Credit. Highly concessional funding is appropriate due to Ethiopia's status as a Least Developed Country with a GDP per capita of $707 in 2017. In addition to SLM investments, GCF funding will also be used to mitigate the risk and overcome the barrier of limited capacity to scale up the current coverage of SLM activities. This risk includes the limited human resources to support beneficiaries in the planning and implementation of complex interventions, the challenge of implementing a cost-effective M&E system, and the need to strengthen coordination among institutions, sectors, programs and projects.

The GCF highly concessional funding, along with additional financing from IDA, MDTF and GoE, would build upon previous SLM practices, taking into account lessons learned and introducing new activities in order to achieve landscape restoration and establish green corridors. Activities would include land use rationalization, intercropping, low tillage, gully reclamation, establishing grazing corridors, watering points and wells, and sylvo-pastoral strategies. Large-scale landscape restoration is only achievable through GCF co-financing due to the nature and scale of the needed investments. Land restoration lays the foundations for increased resilience to climate change and mitigation capacity while it enables agricultural production.

The second type of intervention for which GCF funding is requested is that of measures intended to encourage the adoption of Climate Smart Agriculture (CSA) practices and the development of strong value chains associated with livelihoods based on SLM and CSA. By strengthening value chains linking livelihoods based on SLM and CSA practices with the private sector, activities funded by GCF will contribute to the development of sustainable livelihoods, providing incentives for maintaining SLM and CSA practices.

If correctly implemented, CSA helps increase yields while building farmer resilience and contributing to the achievement of the NDC and several SDGs. Thus, CSA jointly addresses food security and climate change adaptation and mitigation. The determining factors for effective CSA outcomes are the combination of practices such as minimum tillage, crop residue management and crop rotation and intercropping. Challenges remain in the implementation of this combination of practices, such as the need for a change of mindset of farmers, extension workers and policy makers, competition for crop residue, lack of cover crops and lack of suitable technologies. Concessional funding is needed in order to remove these barriers and create a culture and knowledge base within which CSA can continue to be promoted by the extension services and implemented by farmers in future.

Without GCF involvement, Ethiopia cannot finance the proposed interventions. The national Climate Resilient Green Economy strategy has called for annual spending of $7.5 billion to respond to climate change. With national budgetary resources for climate-change relevant actions estimated to be in the order of $440 million per year and international sources contributing tens of millions of dollars per year, there is a major financing gap. Poor access to credit, high lending rates and an insufficient budget are not conducive to the investments required for handling local climate change impacts. In addition, Ethiopia's Debt Sustainability Assessment recently changed the risk of debt distress to high. Thus, GCF concessional financing, including a high degree of concessionality, is needed to ensure improved resilience to climate change impacts and food security in Ethiopia.

Without the Project intervention, beneficiaries both in the area and downstream will continue to struggle to establish or maintain their livelihoods and it is expected that without the Project, land use will continue on its current path. Continued soil erosion, water insecurity, and land insecurity leads to land degradation with direct losses to those that rely on crop and livestock production and related industries for their livelihood. Production yields will go down or farmers will have to increase their input costs, on e.g. fertilizer, to maintain current yields. In the absence of storage facilities, farmers will continue to experience post-harvest losses. They will also be unable to capture higher crop prices that are only obtainable a few months after harvest and in larger markets. Non-agricultural land in the watershed will also continue to deteriorate without the Project due to soil erosion and overuse of common land through grazing livestock and firewood collection. This will put a further strain on the population who derive their livelihood from forests, woodlands, and surrounding areas. Downstream from the project area, continued land degradation will also affect areas and households through increased flood risk and sedimentation of irrigation dams.

Figure 6 illustrates how this analysis assumes a declining production without Project interventions due to soil erosion. With Project interventions the yield loss is avoided and, for some production systems (crops, livestock, and grassland), with-project yields increase over time. This yield increase is attributed to adoption of improved cultivars, improved seeds, better animal breeds, land restoration, water management, and implementing climate smart agricultural techniques. The sum of the two shaded areas in the Figure constitute the incremental benefit

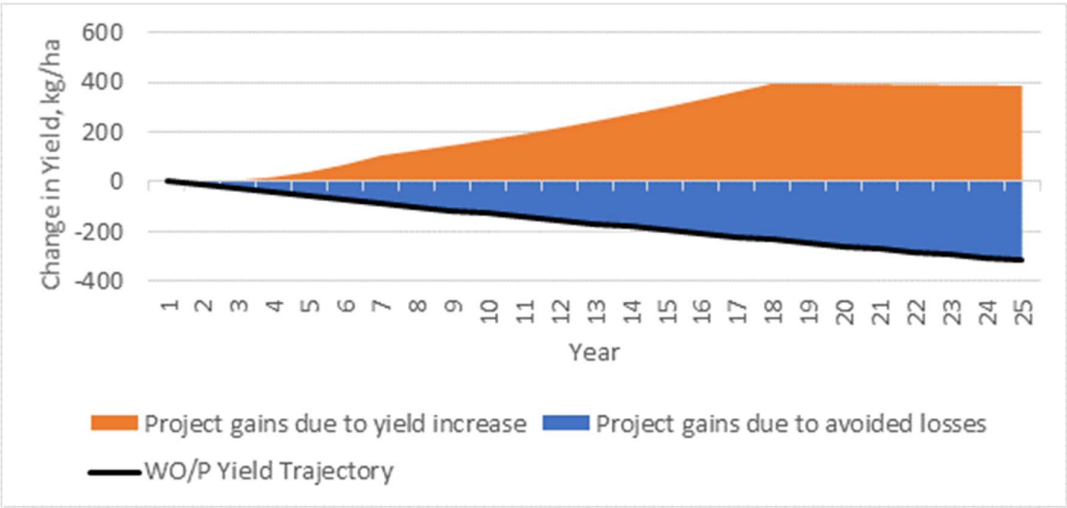

Figure 6 Illustration of incremental benefits

D.2. Paradigm shift potential (max. 500 words, approximately 1 page)

Describe the degree to which the proposed activity can catalyze impact beyond a one-off project or programme investment. Describe the following, if applicable:

- *Potential for scaling up and replication*
- *Potential for knowledge sharing and learning*
- *Contribution to the creation of an enabling environment*
- *Contribution to the regulatory framework and policies*
- *Overall contribution to climate-resilient development pathways consistent with relevant national climate change adaptation strategies and plans*

The RLLP will scale up, transform and innovate through the government of Ethiopia's ongoing SLM program. Following the success of earlier SLM interventions, the RLLP represents a paradigm shift by focusing on building the institutions and incentives necessary for long-term investment in, and maintenance of, restored landscapes that are both resilient to climate change and sequester carbon. Transformative elements of the RLLP include (i) an emphasis on strengthening the value chains associated with sustainable agricultural practices in restored watersheds, designed to build incentives for local communities to maintain restored landscapes over the long term, (ii) a focus on the provision of land-holding certificates, to encourage investment in long-term landscape productivity, and (iii) policy support for the establishment of watershed associations, combined with capacity building of local governments, to provide an institutional framework for long-term maintenance of restored landscapes.

The theory of change behind this package of interventions (as shown in the illustration below) is that by delivering more productive, secure and resilient livelihoods to local communities and by establishing the institutional framework needed to support maintenance of restored landscapes over the long term through watershed associations and local governments, the RLLP will lead to a durable shift towards SLM in the degraded watersheds of the Ethiopian highlands.

Such dissemination will be encouraged through awareness generating initiatives and training programs undertaken under Component 2.1, including farmer to farmer experience exchange visits, field schools, and awareness raising workshops (refer to Annex K.1. RLLP Detailed Budget). These activities will mobilize traditional self-help institutions of the communities in the project woredas, which have already contributed immensely to effective Project implementation and sustainability. For example, in all implementing regions and woredas, there are indigenous institutions (such as "Idir", "Yehager Shimaglewoch", (Elders), religious fathers, "Maheber", etc.), which have been established by the community for different purposes and are also working for the successful implementation and dissemination of SLM practices (refer to Annex D.1. RLLP Social Assessment). In addition, Ethiopian communities are used to financing investments through rotating savings and credit associations (ROSCA) called ekub rather than through the underdeveloped formal financial sector.

RLLP will be implemented by MoA, the ministry responsible for agriculture in the entire country. The ministry, working together with WB and other donors, already has a clear history of scaling up – SLMP-II expanded the area included in SLMP-I and RLLP will expand the project area further (see Figure 2). The Government of Ethiopia aims to introduce sustainable land use practices for all agricultural land in the country and if RLLP is as successful as the preceding SLM programs, there is every intention to continue the process of scaling up in the coming years. MoF and MoA are committed to scaling-up and ensuring the long-term sustainability of the Government's proven flagship SLM Program.

RLLP will also seek to identify innovative sources of SLM financing, including Payment for Ecosystem Services (PES) from either (i) private sources with an interest in restored watersheds, as exemplified by the recent agreement with Raya Brewery-BGI Ethiopia in the Tigray Region, or (ii) public sources such as municipalities and River Basin Authorities with an interest in improved catchment management to extend the lifetime and productivity of hydrological infrastructure, including for hydropower, irrigation and water supply. Further information on the project's engagement with the private sector is provided in Section E.5.3 and Annex B.1.

The knowledge generated and experience gained through implementation and evaluation of RLLP will also be disseminated more broadly to inform the design of SLM interventions internationally.

D.3. Sustainable development (max. 500 words, approximately 1 page)

Describe the wider benefits and priorities of the project/programme in relation to the Sustainable Development Goals and provide an estimation of the impact potential in terms of:

- *Environmental co-benefits*
- *Social co-benefits including health impacts*
- *Economic co-benefits*
- *Gender-sensitive development impact*

The proposed interventions are designed to support climate change adaptation and mitigation, enhancing long-term resource productivity while generating multiple social, environmental and economic co-benefits.

Environmental Benefits

Benefits from improved water management include increased soil moisture and reduced variability in response to flood/drought conditions. Soil retention provides benefits both on-site in terms of soil quality and off-site in terms of reduced erosion; it can be measured in terms of land savings or erosion prevention. Increased soil fertility is a determining factor for higher and less variable crop yields. Increased vegetation cover also helps to prevent erosion and improves downstream water quality, while simultaneously supporting biodiversity, which will be further enhanced through investment in green corridors.

An illustration of the benefits that sustainable land management can provide in Ethiopia is provided by the Productive Safety Net Program (PSNP). Under RLLP, a number of communities graduating from food-insecure status in newly identified watersheds will transition from support under PSNP to join the SLM Program. The PSNP implements land restoration and sustainable land management and mitigates nearly 3.4 million t CO2e per year (+/-20%), achieved by sequestering carbon in biomass and soils.[19] This equates to 1.5% of Ethiopia's Nationally Determined Contribution (NDC) to mitigation.[20]

Social and Economic Benefits

The principal direct set of benefits from the RLLP will be improved incomes and more resilient livelihoods of vulnerable communities in degraded watersheds targeted by the project as a result of investments in SLM, climate resilient livelihood diversification (including grain-, meat-, dairy-, and bamboo-processing; tree seedling nurseries; manufacturing of improved cook stoves, production of improved environmental services; and private sector initiatives for PES or CSR), value chain strengthening, and land-holding certification. These interventions are also expected to deliver co-benefits, including: (i) health benefits of reduced exposure to household air pollution and of improved nutrition due to a more varied food production, (ii) reduced time spent on biomass fuel collection through the use of improved cookstoves, and (iii) enhanced infrastructure resilience as a result of reducing flooding and sediment loads. Benefits from improved administration and tenure rights include conservation of protected areas, biodiversity and tourism.

RLLP will support climate resilient food security of communities graduating from the PSNP and prevent a return to food insecurity of these communities as a result of climate shocks, resulting in social and economic benefits for vulnerable communities in the targeted watersheds. Through the PSNP, the immediate food needs of 8 million people were met by improving land restoration and infrastructure, and smallholder farmers increased maize yields by an average of 38%.[21]

Project-funded capacity building and institutional development at all levels have direct value in that they increase the skill level in public sector institutions and enable them to work more efficiently in providing essential and enhanced public goods and services. These institutional benefits are not quantified in the Economic and Financial Analysis (EFA), but they are seen as critical to ensuring that the other benefits can be realized when it comes to building productive alliances with access to agricultural financing, land, and other business enabling services.

According to a financial and economic analysis (EFA) of the RLLP, the estimated value of avoided soil erosion varies between US$ 0.1 and US$ 0.3/tonne of soil depending on the gross marginal value land use (US$ 0.11/tonne of soil represents non-cropland, while US$ 0.26/tonne is the value of avoided erosion for cropland).The Integrated Financial and Economic Analysis conducted during project preparation estimates a farm-level gross margins increase of more than USD 101/year/person, including the value of production used for home consumption, which is 1.2 times the Food Poverty Line**.** When assuming 5 persons per household farm, the gross margin can increase to at least USD 101 per household member per year. To associate this result with a measure of absolute poverty, we use the National Poverty Line for Ethiopia. The poverty line indicates the money required to afford the food covering the minimum required caloric intake (Food Poverty Line) and additional non-food items. The improvement in farm gross

margin is around 1.2 times the Food Poverty Line in 2018 terms (USD 85/person/year). This improvement is also about 63% of the total National Poverty Line (USD 162/person/year). Other representative farms are estimated to capture higher growth in gross margins of up to USD 135/person/year. This is a direct measure of increased resilience in the project area.

Gender Sensitive Development Impact

In addition to promoting women's participation in community watershed committees, the RLLP will extend experience under the ongoing SLM program to ensure women fully share in project benefits. In particular, women will continue to be specifically targeted in the issuance of land-holding certificates, and in the design of support for income-generating activities. Women and children will benefit disproportionately in the health and time-savings benefits of improved cookstoves. To ensure that gender-specific lessons are learnt during implementation of the RLLP, a socio-economic impact evaluation will be conducted by the World Bank's Africa Region Gender Innovation Lab. Specific gender-sensitive development impacts include:

- Strengthened implementation practices (planning, implementation and monitoring processes) for equitable and meaningful participation of females and males in sustainable land restoration and water conservation practices (50 % female representation in all stages)

- Integrated landscape management practices adopted by local communities based on practical and strategic gender needs and priorities.

The SLMP-II has produced several gender-related benefits. For example, it had a positive influence on gender norms and perceptions about women. Income generation through the SLMP-II was appreciated by women participants, who pointed out that they have gained more respect from community members because of their increased self-reliance. Another substantial impact was an increase in women's self-confidence. There have been changes in attitudes about women's roles and capacity, and women have started to feel more confident and motivated to engage in IGAs and climate smart agriculture. The land holding certification component also anticipates benefits by enhancing women's access to and control over one of the most important productive assets in a rural community: land. Land tenure will address the strategic needs of women, such as economic empowerment, enhanced decision-making power, and improved power relations in the household.

D.4. Needs of recipient (max. 500 words, approximately 1 page)

Describe the scale and intensity of vulnerability of the country and beneficiary groups and elaborate how the project/programme addresses the issue (e.g. the level of exposure to climate risks for beneficiary country and groups, overall income level, etc.). Describe how the project/programme addresses the following needs:

- *Vulnerability of the country and/or specific vulnerable groups, including gender aspects (for adaptation only)*
- *Economic and social development level of the country and the affected population*
- *Absence of alternative sources of financing (e.g. fiscal or balance of payments gap that prevents government from addressing the needs of the country; and lack of depth and history in the local capital market)*
- *Need for strengthening institutions and implementation capacity*

Ethiopia's Second National Communication identified the primary cause of vulnerability to climate variability and change as a high dependence on rain-fed agriculture, which is sensitive to climate variability and change. Other causes cited included under-development of water resources, low health service coverage, a high population growth rate, low economic development, low adaptive capacity, inadequate road infrastructure in drought prone areas, weak institutional structures, and lack of awareness.[22]

According to the vulnerability assessment in the SNC based on existing information and assessments, the most vulnerable sectors to climate variability and change are agriculture, water and human health. In terms of livelihoods, smallholder rain-fed farmers and pastoralists are found to be the most vulnerable. Ethiopia's rural livelihoods are highly dependent on the performance of the agriculture and forestry sectors, which are highly sensitive to climate change. Over 80 % of the Ethiopian population lives in rural areas and are consequently highly dependent on the performance of productive landscapes for income, energy, food, building materials, and water. Furthermore, agriculture accounts for most jobs and about 40 % of output and exports, exacerbating exposure to the risks of climate change, which include increased soil erosion and more frequent droughts and floods. The arid, semi-arid and dry sub-humid parts of the country are affected most by drought.[23]

Furthermore, the project regions exhibit low adaptive capacity, which increases vulnerability. Although it is not possible to have an exhaustive list of indicators that assess adaptive capacity of a region due availability of processed data for the proposed project regions, the indicators in Table 2 below relates directly to usage and quality of water, energy and settlement, and indirectly to the level and quality of education and health facilities. For example, the use of modern construction materials directly indicates the quality of settlements available to resist the physical impacts of climate variation. The under 5-mortality rate, however, may indirectly indicate that health facilities are of poorer quality, or that lower levels of supplementation and vaccinations are being provided.

Table 2 Adaptive capacity indicators in project regions[24]

Adaptive capacity Indicators (share in %)	Country	Tigray	Gambella	Amhara	Oromia	Benishang	SNNPR
# watersheds		17	7	38	44	11	36
Literate population aged 10 and above (-)	56.28	53.54	58.95	41.14	45.39	47.28	46.79
HHs by Protected Well/Spring as a Source of Drinking Water in Dry Season (-)	18.77	27.81	24.46	22.65	16.83	49.28	18.23
HHs using collected firewood for cooking (+)	72.61	64.43	77.91	68.23	79.07	89.61	84.08
HHs with modern construction material* (-)	1.76	11.27	2.01	0.68	0.69	0.63	1.22
HHs suffered from Food Shortage for at least 1 month (+)	21.21	12.97	30.39	22.96	16.38	5.3	34.3
HHs suffered from Food Shortage in the last 12 months (+)	22	32.34	27.61	27.6	19.09	11.66	23.77
HHs Limiting their Meal Portions to cope with Food Shortage (+)	21	25.6	9.46	18.41	27.16	29.84	16.82
Under-5 mortality rate in deaths per 1000 live births (+)	67	59	88	85	79	98	88

The adaptive capacity indicators assessed above indicate that most of the targeted watersheds are situated in regions that have relatively low adaptive capacity. The regions of Afar, Somali, Oromia, and Tigray, which have relatively high poverty levels, are comparatively more vulnerable to climate change than other regions in the country.[25] Institutional capacity to respond to impacts in those areas is also low. One study assessed the flood risks and health-related issues in the Gambella region of the country. It identified three critically important weaknesses, including a lack of flood-specific policy, absence of risk assessment, and weak institutional capacity.[26]

A recent World Bank book examines the potential impact of climate change and climate policies on poverty reduction[27]. It suggests that as a result of differences in exposure and vulnerability, natural disasters increase inequality and may contribute to a decoupling of economic growth and poverty reduction. For instance, after Ethiopia's 1984–85 famine, it took a decade on average for asset-poor households to bring livestock holdings back to prefamine levels. Poor people can become more resilient to shocks in agriculture thanks to trade and food reserves that can overcome local shortages in times of need, better access of poor farmers to markets, and improved technologies and climate-smart production techniques. Access to functioning markets, however, depends on better infrastructure and better institutions. For instance, in Ethiopia, the incidence of poverty decreased by 6.7 % following farmers' access to all-weather roads. Case studies from Ethiopia provided in the book further suggest that the cost of a drought to households can increase from zero to about $50 per household if support is delayed by four months, and to about $1,300 if support is delayed by six to nine months. This rapid increase, which is due to irreversible impacts on children and distress sales of assets (especially livestock), helps explain why most post-disaster responses have multiple stages. Typically, initial support is delivered quickly—even at the expense of targeting and accuracy—and larger recovery and reconstruction efforts are provided later with more emphasis on appropriate targeting. The authors conclude that providing resources for climate risk analysis and project preparation and ensuring that financial instruments and resources are available for development and poverty reduction investments can provide a window of opportunity before the impacts of climate change materialize.[28]

Figure 6 shows the population density in Ethiopia as well as population density against all restored watersheds and those planned by RLLP. This map shows that most of the restored and planned watersheds are located in densely populated parts of the country.

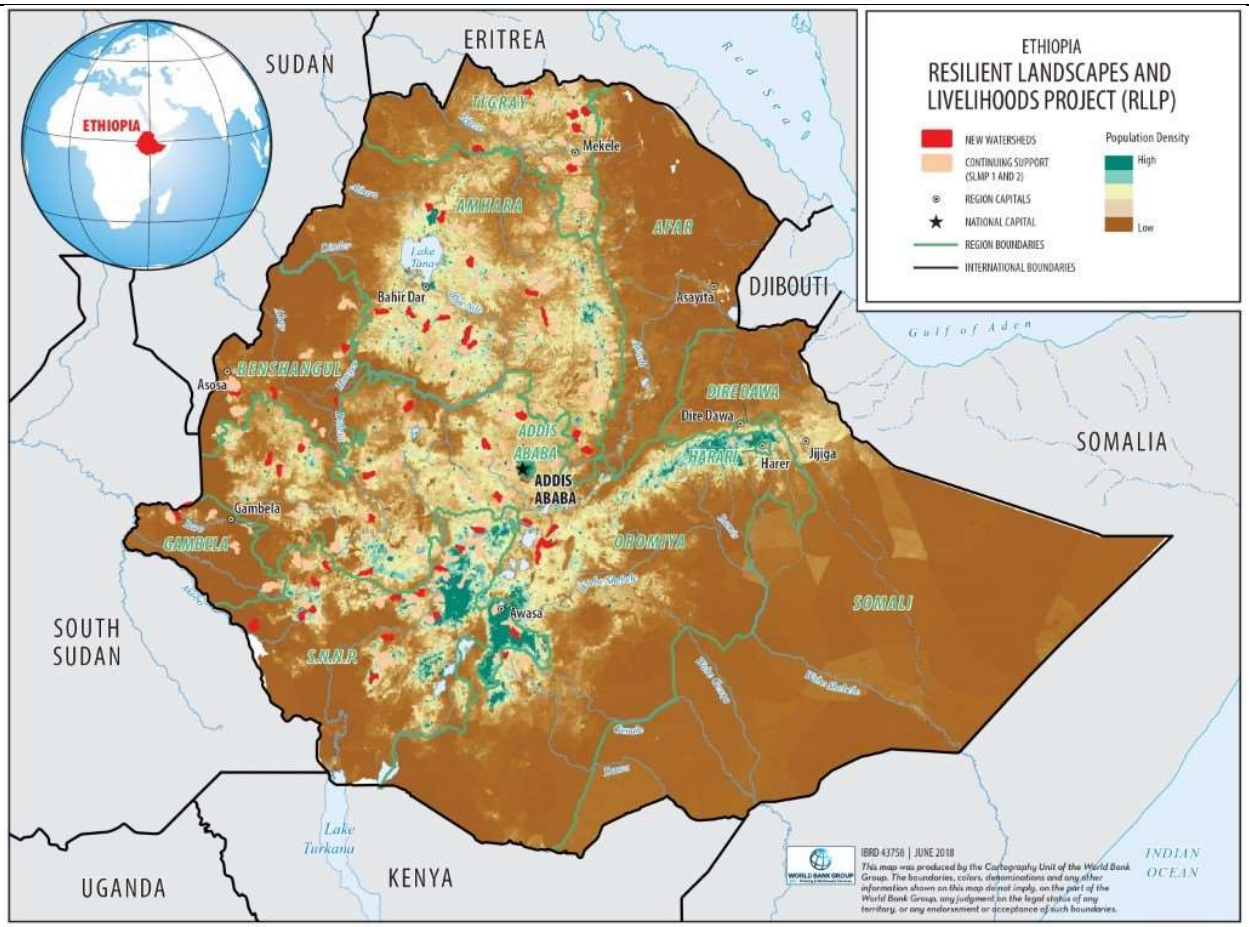

Figure 6 Population density in Ethiopia

By focusing on the most degraded watersheds in the Ethiopian highlands, the RLLP will target the communities most vulnerable to climate change impacts. Under Component 1, sustainable soil and water conservation practices will reduce exposure to climate-related impacts such as erosion and drought. Climate-smart agricultural practices will reduce the sensitivity of the sector to climate change and variability, and livelihood diversification will reduce the sensitivity of communities to impacts affecting the agricultural sector. Under Component 2, the capacity building and information modernization activities will increase adaptive capacity at the local government level. Under Component 3, activities to secure land tenure for small-holder farmers will increase household resources and encourage the adoption of SLMPs, which will reduce sensitivity to climate impacts and increase adaptive capacity through the dissemination of adaptive measures across highly vulnerable regions. In addition, the roll-out of the NRLAIS under this component will increase adaptive capacity at the regional and national level by introducing evidence-based monitoring and ensuring a coordinated and consistent approach to the development of policies, legislation, regulations, models and research to enhance sustainable land governance.

The project will work with the most vulnerable populations in the target areas. Detailed bio-physical information will be used to prepare MYDPs for new watersheds. Local-level participatory land use planning teams at the woreda and kebele level will ensure that interventions benefit smallholder farmers. The project also includes activities specifically targeting the particularly vulnerable group of landless and jobless youth and women. In these activities, landless youth will be provided with communal land certificates in exchange for land restoration. The project will also ensure that the provision of landholding certification will be implemented in such a way that half of the title-holders will be women. This will enable these groups to participate in agricultural production, as well as on the agricultural market, thus enhancing their income opportunities.

D.5. Country ownership (max. 500 words, approximately 1 page)

Please describe how the beneficiary country takes ownership of and implements the funded project/programme. Describe the following:

- *Existing national climate strategy*
- *Existing GCF country programme*
- *Alignment with existing policies such as NDCs, NAMAs, and NAPs*
- *Capacity of Accredited Entities or Executing Entities to deliver*
- *Role of National Designated Authority*
- *Engagement with civil society organizations and other relevant stakeholders, including indigenous peoples, women and other vulnerable groups*

The RLLP will build on and scale up the results of the two completed Sustainable Land Management Programs, SLMP-I and SLMP-II. RLLP is also designed to be complementary to and avoid overlap with related government programs such as the Productive Safety Net Program (PSNP), The Second Agricultural Growth Program (AGP 2), the Agricultural Transformation Agency (ATA) and others. The diagram below summarizes the relationship of the RLLP to the most important baseline projects, which are described further below.

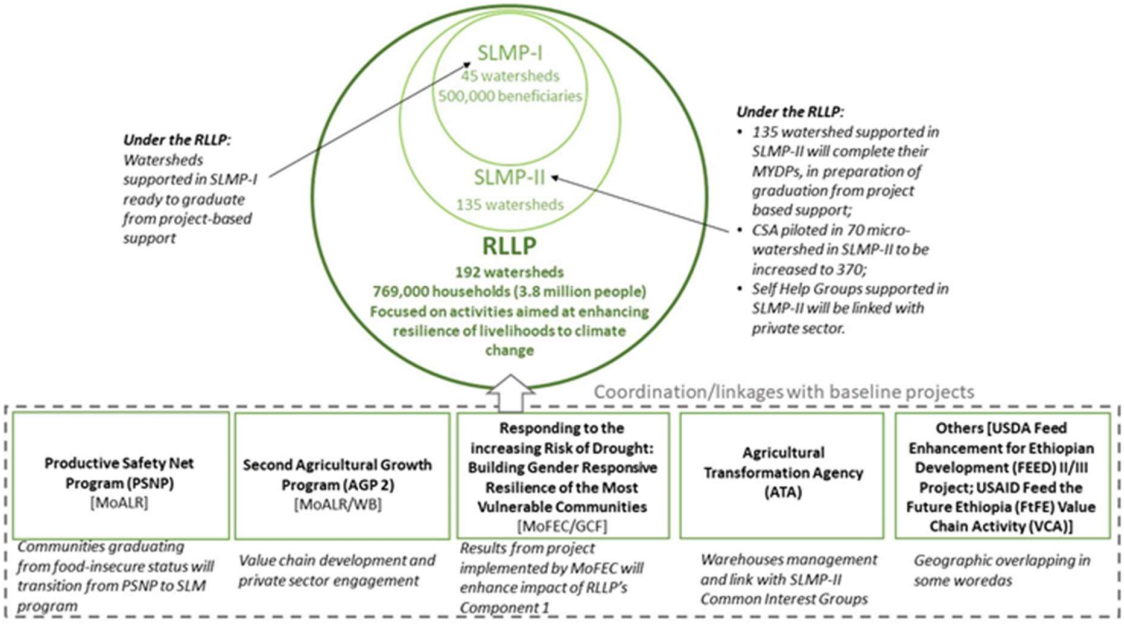

Figure 2 Baseline projects

Baseline projects

The proposed project has been requested by the government of Ethiopia to both scale up the success of the ongoing SLM program and introduce new, transformative and innovative elements. Ethiopia's problem of land degradation caused by erosion, drought, loss of vegetative cover, and unsustainable grazing and cultivation practices has led to the development of official government programs for better land management. These programs have evolved from an unsuccessful "top-down" approach to one that recognizes the importance of community participation in decision making, not simply as a source of labor.

The Government developed, with support from the TerrAfrica partnership, the *Ethiopia Strategic Investment Framework for SLM*. This investment plan anchored the establishment of the GoE's programmatic approach to scaling up SLM. Called the SLM Program, it provided the platform for convening and coordinating assistance from donors. When it was developed, the SLM Program targeted 177 "high potential, food secure" watersheds. Before this programmatic approach was undertaken by the GoE and partners, efforts to address land degradation were piecemeal and scattered throughout the country.

Sustainable Land Management Program-I (SLMP-I)

As part of the SLM Program, the World Bank/GEF-financed SLMP-I operation targeted 35 watersheds initially, later expanding to 45. The initial target group was an estimated 500,000 beneficiaries, representing rural households living in 35 large watersheds assisted by the project. These large watersheds, with an average size of about 8,500 ha, were located in six Regional States of Ethiopia (Amhara, Oromia, Tigray, SNNP, Beneshangul/Gumuz, and Gambella). In addition, through the capacity building activities of the project, technical staff at the central (Federal Ministry of Agriculture and Livestock Resource, MoA), regional (Woreda) and district (Kebele) levels benefited from training and improved working conditions. The project was declared effective in March 2009 and closed on schedule 4.5 years later (September 2013) with no extensions.

Key conclusions of the final evaluation of SLMP-I were that the project's objectives were substantially relevant to the country context and priorities. As part of the project, 45 participatory Watershed Management Plans and 613 community-based micro-watershed management plans were prepared. The area under sustainable land management in the targeted watersheds increased from 86,892 ha to 209,926 ha by project closure. The Normalized Difference Vegetation Index (NDVI), a measure of vegetation cover and a proxy measure for the reduction of land degradation, increased in the project areas by 0.543 (9%) over baseline of 0.498 and soil carbon increased by 31% during the period 2009-2013. At appraisal, the project team estimated an overall Economic Rate of Return (ERR) of 10-17% and a Financial Rate of Return (FRR) of 8-11%. The cost benefit analysis conducted at closure calculated an IRR that ranged from 10.41% to 22.60%.

SLMP-II

SLMP-I was considered successful by the GoE, which committed to a larger follow-on project, SLMP-II, that aimed to consolidate the SLM platform and expand the number of large watersheds assisted from 45 to 135. In SLMP-II MoA continued to develop and implement the innovative, integrated and inclusive SLM Program that supports (i) efforts to address land degradation and climate risks and productivity constraints through a landscape approach, and (ii) contributes to growth in the agricultural sector in general. SLMP-II aimed at (i) further scaling up and consolidating the pioneering efforts and achievements of the project, mainly through replicating the project's assistance to 90 additional watersheds; (ii) contributing to the consolidation and harmonization of MoA's multi-donor SLM program; and (iii) synergizing the project's achievements in terms of reduced soil degradation and improved water management by promoting a comprehensive livelihood improvement strategy anchored on "climate-smart" agricultural practices in beneficiary farmlands, households, and communities.

In SLMP-II, natural and economic wealth was built on over 1.3 million hectares of degraded communal and smallholder lands through an integrated package of activities in targeted watersheds that included: (i) management of natural resources (soil and water conservation structures, agroforestry, participatory forest management, enclosures to reduce free grazing and allow assisted natural regeneration, small-scale irrigation, water point development, climate-smart technologies on household farmland, and land use planning); (ii) improved land rights through issuance of legal landholding certificates to one million people, including women and landless youth; and, (iii) livelihoods support, including for promotion of improved cookstove adoption that reduces fuelwood demand, women's labour, and respiratory illnesses.

Results from SLMP-II financing are well documented. During a major drought in 2015-16 there is some evidence that water and food security in participating districts were strengthened compared to untreated areas. Degraded lands have been brought back into production for local farmers, dry season base flow of streams and depth to water table are improving, and protective vegetation cover was either maintained or expanded, as verified by remote sensing. In addition, approximately 9 million tons of additional CO2eq have been accumulated in restored productive lands in SLMP-II areas, a proxy for system function as well as a contribution to climate change mitigation. Smallholder farmers regularly express how their identity and sense of place has also been restored through landscape restoration and improved legal land rights. Many community members who were ready to migrate remained in their birthplace and were able to afford to send their children to school. They were able to improve nutrition by producing vegetables and fruits using small-scale irrigation, by diversifying through poultry, apiculture and woodlot production, and by increasing livestock productivity through forage management.

Linkages with other government programs and projects

Flagship programs of the MoA include the Second Agricultural Growth Program (AGP) and the Productive Safety Net Program (PSNP). PSNP is aimed at enabling the rural poor facing chronic food insecurity to resist shocks, create assets and become food self-sufficient. It provides multi-annual predictable transfers, as food, cash or a combination of both,

to help chronically food insecure people survive food deficit periods and avoid depleting their productive assets while attempting to meet their basic food requirements. Under RLLP, a number of communities graduating from food-insecure status in newly identified watersheds will transition from support under PSNP to join the SLM Program, while at the other end of the SLM cycle a number of restored watersheds that benefitted from investments under SLMP-I and SLMP-II will graduate from project-based SLM support to continue investment in sustainable, productive landscape management through mainstream government programs.

With support from the Pilot Program for Climate Resilience and the BioCarbon Fund, the Bank is further supporting the government's Climate Resilient Green Economy (CRGE) Facility and four line ministries led by the Ministry of Finance and Economic Cooperation (MoF) to implement a Multi-Sector Investment Plan (MSIP) for climate resilience in key sectors, including agriculture, forestry, water resources, irrigation, and energy, in the context of resilient landscapes.

RLLP plans to work closely with the GCF financed project "Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities" that is being implemented by MoF. Progress in the implementation of Component 1: *Improved access to water to build a resilient livelihood* and Component 2: *Management of Natural Resources for Sustained Water Availability* of the MoF project will enhance the impact of Component 1 of RLLP: *Investment on Green Infrastructure and Resilient Livelihoods*.

The link between the SLMP I and II, RLLP and the MoF project is quite close. As Section C.2, Paragraph 36 of the MoF project proposal explains, "Project results will feed into other on-going national initiatives such as the IWRM projects being implemented in the various watersheds, SLMP, AGP and REDD+ programs being implemented in the adjacent Kebeles. This project could be considered as one of the few initiatives in Ethiopia that has put climate change in to building the resilience of the communities. Whilst there are various ongoing national development programs and projects, climate change has not been captured at the core of it. This program has been strategically designed to address current and future water supply issues to the community as well as integrate initiatives and structural adjustments to efficiently manage this resource."

The creation of resilient landscapes and livelihoods as a result of RLLP will work synergistically with the improvement in drought resilience of communities that will emerge from the MoF project to enhance resilience of the rural population in Ethiopia to a degree that the participating projects could not achieve on their own.

National strategies

Ethiopia's long-term goal is to ensure that climate change adaptation and mitigation are fully mainstreamed into development activities. The proposed project is designed to be transformative, contributing to a number of key national strategies, including Growth and Transformation Plan 2 (GTP-2), the Climate Resilient Green Economy (CRGE) Strategy, and accompanying 2015 Climate Resilience Strategy for Agriculture and Forest, Ethiopia's Nationally Determined Contribution (NDC), the 2017 National Adaptation Plan to Address Climate Change, the Ethiopia SLM Investment Framework, the emerging National Forest Sector Strategy and National REDD+ Strategy, as well as sector strategies for energy, water, and agriculture.

The CRGE Strategy aims at developing a green economy and promoting greater resilience to climate change into a single policy framework in support of its national development objectives. Some of the key objectives of the CRGE, which this project supports, include improving crop and livestock production practices to improve food security and increase farmers' incomes while reducing emissions; and protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks. This project will address crucial issues for the resilience of the agricultural sector identified in the CRGE. It will also contribute to the National Adaptation Plan (NAP-ETH) launched in September 2017. NAP-ETH aims to bring about transformational change in the country's capacity to address the adverse consequence of climate change, focusing in particular on agriculture and forestry.

The project will also contribute to the climate, forest, water, energy, and land tenure targets in the Growth and Transformation Plan 2 (GTP-2) as well as the forthcoming GTP-3. The institutions strengthened as a result of the project will also contribute to the implementation of Ethiopia's Strategic Investment Framework for Sustainable Land Management (ESIF).

The proposed project is also in line with the intention of Ethiopia to limit its net greenhouse gas (GHG) emissions in 2030 to 145 Mt CO_2e or lower. Achieving this goal would mean a 255 $MtCO_2e$ (64%) reduction from 'business-as usual' (BAU) emission projections by 2030. The agriculture sector and REDD+ are targeted to reduce 88% of the volume of GHGs.

Finally, the Policy Implementation Principles of the National Policy and Strategy on Disaster Risk Management (July 2013) include 'decentralized and community-centered' approach towards disasters and points out the importance to 'forecast the hazard, analyze, and take early action'. The goal of the Environment Policy is to enhance the health and quality of life of citizens and to promote sustainable social and economic development through the sound management and use of natural, human made and cultural resources and the environment.

Alignment with NDC and NAPA

As a result of the development of the Climate Change National Adaptation Program of Action (NAPA) in 2007, Ethiopia has made significant advances towards integrating climate change into national planning processes. The NAPA was replaced in 2010 by the Ethiopian Program of Adaptation to Climate Change (EPACC), which calls for mainstreaming climate change into decision-making at the national level. In September 2017 Ethiopia launched a 15-year National Adaptation Plan which focuses on a number of vulnerable sectors including agriculture and forestry. This project is in line with these documents and other government policy.

Ethiopia's NDC states that adaptation initiatives to reduce vulnerability will be based on the country's Climate Resilient Green Economy Strategy (CRGE). The CRGE has informed the design of adaptation activities of the RLLP (see above). Given that 80% of the population depends on agriculture for their livelihoods, increasing the resilience of agriculture is a priority for Ethiopia. The SLMP is mentioned in the NDC as one of the adaptation actions that has already been undertaken and that will contribute to building resilience to climate change. RLLP will contribute towards many of the adaptation interventions identified in the NDC, which concentrate strongly on increasing the resilience of agriculture. The adaptation intervention strategy identified in the NDC towards which RLLP contributes most strongly is "*Enhancing ecosystem health through ecological farming, sustainable land management practices and improved livestock production practices to reverse soil erosion, restore water balance, and increase vegetation cover, including drought tolerant vegetation.".* The project will also strongly contribute towards the actions "*Improve and diversity economic opportunities from agroforestry and sustainable afforestation of degraded forest areas*" and "*Enhance the adaptive capacity of ecosystems, communities and infrastructure through an ecosystem rehabilitation approach in the highlands of Ethiopia. Rehabilitation of degraded lands/forests will also increase resilience of communities, infrastructures and ecosystems to droughts and floods.".* Ethiopia seeks to maximize the synergies between adaptation and mitigation, especially involving agriculture and forests. RLLP will contribute towards two of the pillars for mitigation of GHG emissions: "*Improving crop and livestock production practices for greater food security and higher farmer incomes while reducing emissions*;" and "*Protecting and re-establishing forests for their economic and ecosystem services, while sequestering significant amounts of carbon dioxide and increasing the carbon stocks in landscapes;".*

Capacity of Accredited Entities and Executing Entities

Project financing will flow through MoF, which is mandated to mobilize both domestic and external resources for the implementation of the Climate Resilient Green Economy (CRGE) Strategy. The Project will be implemented by Federal Ministry of Agriculture (MoA).

Significant progress in remediation of degraded lands has been achieved in recent years by the Government of Ethiopia and thousands of local communities largely through investment and technical assistance under MoA's SLM Program. MoA has been implementing the SLMP with World Bank support in six regional states by coordinating investments from major donors and partners (IDA, Norway, Canada, Germany, GEF, LDCF) into a holistic and coordinated landscape management framework. With financing from IDA through the SLMP-II, over 1.3 million hectares of degraded communal and smallholder lands in selected watersheds is being converted into a sustainable source of natural and economic wealth through an integrated package of activities. Working through Regional Bureaus of Agriculture (BoAs) and woreda (equivalent to district) administrations over the last ten years, the SLM Program has restored productivity in more than two million hectares of degraded watersheds in six regional states

of the Ethiopian highlands. Up to now, the SLM Program has supported interventions in a total of 223 major watersheds, out of an estimated 700 that would benefit from SLM interventions.

The project is featured in the World Bank's Country Partnership Framework (CPF) for FY 17-21 as a flagship operation addressing the CPF's resilience pillar, with a funding commitment from IDA-18 for US$100 million.

IDA financing has helped restore productive capacity and build resilient livelihoods in 135 highland watersheds through an integrated package of activities that includes management of natural resources on more than half a million hectares of degraded communal and smallholder lands. Through soil and water conservation structures, enclosures to limit free grazing, and afforestation or reforestation of more than 80,000 hectares, these activities have led to an average 9 % increase in vegetation cover in treated watersheds. Complementing these physical interventions, IDA financing for the SLM Program has strengthened MoA's support for land rights through the issuance of landholding certificates to over 300,000 households, including more than 200,000 women who have received titles either individually or jointly with their husbands, and more than 7,000 landless youth who have received titles to communal holdings in exchange for restoring land. To further ensure that local communities derive livelihood benefits from these investments, more than 130,000 smallholders in the targeted watersheds have participated in income-generating activities under the SLM Program, including for improved cookstove adoption that reduces fuelwood demand, women's labor and respiratory illnesses.

SLMP-II benefitted from parallel financing from GIZ for Cluster Advisors who supported extension, technical planning, and results reporting at woreda and kebele levels. The new GIZ program launched in 2018, Sustainable Use of Resources for Economic Development (SURED), will play an important role in providing training for technical assistance to be contracted under RLLP, as well as quality control of these services.

D.6. Efficiency and effectiveness (max. 500 words, approximately 1 page)

Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objectives, including addressing existing bottlenecks and/or barriers, and providing the minimum concessionality to ensure the project is viable without crowding out private and other public investments. Refer to section B.5 on the justification of GCF funding requested as necessary.

Please describe the efficiency and effectiveness of the proposed project/programme, taking into account the total financing and mitigation/ adaptation impact the project/programme aims to achieve, and explain how this compares to an appropriate benchmark.

Please specify the expected economic rate of return based on a comparison of the scenarios with and without the project/programme.

Please specify the expected financial rate of return with and without the Fund's support to illustrate the need for GCF funding to illustrate overall cost effectiveness.

Please explain how best available technologies and practices have been considered and applied. If applicable, specify the innovations/modifications/adjustments that are made based on industry best practices.

Project co-financing is USD 131 million, bringing the co-financing ratio (total amount of co-financing divided by the Fund's investment in the project) to 0.79. In addition to this co-financing, parallel financing is provided by the Government of Ethiopia, who will provide USD 10 million in kind, and by GIZ, which is providing USD 13 million in the form of technical assistance. The project will leverage private sector and beneficiary contributions through activities aimed at providing household energy solutions and strengthening value chains associated with SLM interventions.

A detailed framework for private sector engagement under RLLP is presented in Annex B.1. This framework identifies three major categories of partners. The first are partners with activities currently being supported by other funders. RLLP will collaborate with existing private sector engagement activities in order to best utilize available funding and avoid unnecessary duplication. The figure below shows the relationships between players in this category who can support private sector engagement in the project. RLLP will facilitate these existing activities to extend their activities to rehabilitated watersheds. The second category is made up of private enterprises who have the potential to buy RLLP products or sell products that watershed households need. RLLP will engage with enterprises that already have a base in or plan to focus on the geographical areas of rehabilitated watersheds. A strong example of this type of opportunity is the MOU signed with Raya Brewery-BGI Ethiopia in Enda-Mohoni Woreda of South Tigray Zone. In the final category are long-term opportunities for the private sector to begin to implement activities in the targeted watersheds. RLLP will identify gaps and potential partners and suggest pilot collaborations, for example with enterprises who may be interested in specific crop varieties that can be grown in the targeted watersheds.

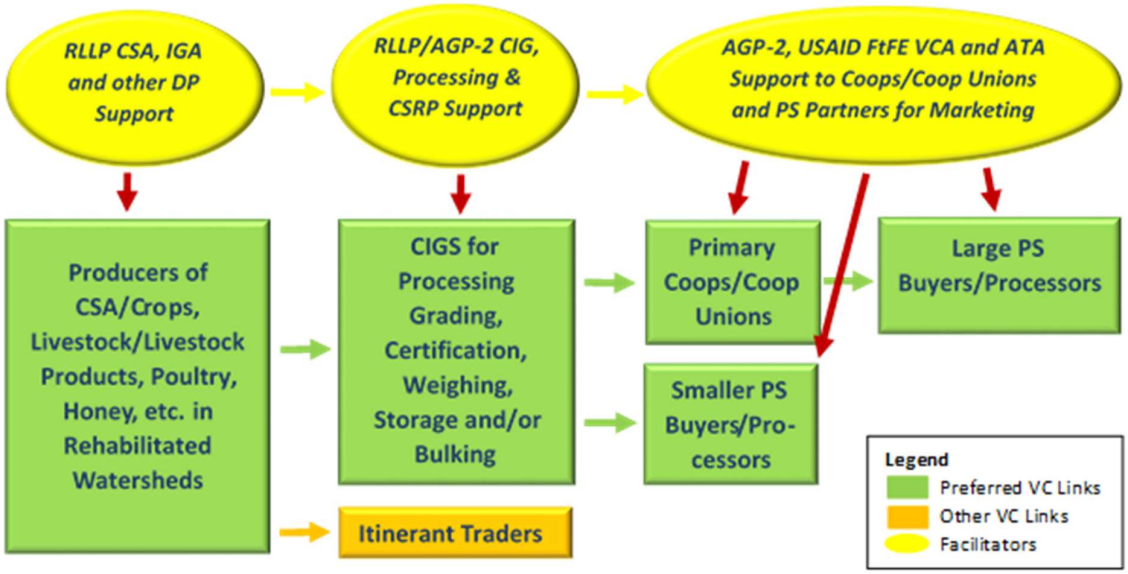

Figure 7 RLLP Linkages from Diversified Livelihoods to Value Chains and Markets

Narrative and rationale for the detailed economic and financial analysis

To assess the ex-ante efficiency of the project investment, a cost benefit model is used. Annual cost and benefit flows are estimated as the difference between without-project and with-project net benefits for direct beneficiaries (See Annex E.1: Economic and Financial Analysis for more details). Efficiency indicators include the Economic Net Present Value (ENPV) and the Economic Internal Rate of Return (EIRR), as well as impact on farm productivity, household incomes, soil erosion, and GHG emissions. Based on available information compiled during preparation, gross margins and representative farm models have been developed for selected cropland, non-cropland, and livestock production in the project area. Additional net benefits are analyzed from establishing Community Storage Receipts Program (CRSP) facilities.

In the counterfactual scenario without the Project, land use will continue on its current path. Continued soil erosion, water insecurity, and land insecurity will result in land degradation. It is expected that climate change will exacerbate soil erosion and water insecurity leading to direct losses to those who rely on crop and livestock production and related industries for their energy use and livelihood. Production yields will go down or farmers will have to increase their input costs, such as fertilizer use, to maintain current yields. In the absence of CSRP facilities, farmers will continue to experience post-harvest losses. They will also be unable to capture higher crop prizes that are obtainable a few months after harvest and in larger markets. Non-agricultural land in the watershed will also continue to deteriorate without the Project due to climate change and soil erosion as well as overuse of common land through livestock grazing and firewood collection. This will put a further strain on the population who derive their livelihood from forests, woodlands, and surrounding areas. Downstream from the project area, continued land degradation will

also affect areas and households through increased flood risk and sediment build-up in irrigation and hydroelectric dams.

Incremental benefits are estimated for investments in green infrastructure and resilient livelihoods (Component 1). It is assumed that these benefits will only accrue if the outcomes in the remaining three components are also achieved: 2. Strengthening institutions, information and monitoring for resilience; 3. Land administration and use; and 4. Project management and reporting. Investment costs include USD 165.24 million from GCF, USD 100 million from IDA, USD 19 million from MDTF, and USD 12 million from expected MDTF Contribution from the Government of Canada for a total of USD 296.24 million.

Following World Bank guidelines, the economic analysis considers anticipated costs and benefits with and without the project, including social costs and benefits. This necessitates the consideration of funding sources and labor costs outside the GCF project. In this project, the following are included as additional costs for capacity building and project management totaling USD 23 million (USD 13 million from GIZ and USD 10 million from the GoE). In addition, the analysis includes an estimated USD 99.1 million in in-kind contributions from project beneficiaries minus USD 3.8 million in price contingencies. With all costs included, the total budget included in the analysis is USD 319.2 million. As part of the exit strategy, recurrent costs in the years after the project has ended are estimated to be 2.5% of initial costs, including beneficiary in-kind contributions of USD 10.4 million per year.

The Project will increase climate resilience in 210 major watersheds covering an area of 2.1 million ha. Based on 2007 census numbers, the Project has an estimated 4.2 million beneficiaries (or 834,000 households) in the selected watersheds. Since population growth since 2007 census is estimated to be 15% or more, for the present day this is a conservative estimate.

Project interventions are assumed to lead to direct net benefits to crop and livestock producers as well as forests and other non-croplands through watershed management plans. These activities will reduce soil erosion and yield losses that are expected to result from climate change in the absence of Project intervention. Activities will also improve productivity and increase resilience against the negative impacts of climate change. To further increase resilience against future climate change, the Project will encourage climate resilient livelihood diversification through community groups including CSRPs. Project activities will also constitute a net carbon sink when analyzing impact on GHG emissions. While not included quantitatively in this EFA, benefits will also accrue from strengthening institutions and improving information and monitoring systems. Improved administration and secure tenure rights will create incentives for beneficiaries to adopt sustainable management practices. The Project is also expected to have positive impact on indirect beneficiaries in neighboring areas through informal dissemination of new management practices as well as downstream improvements from reduced floor risk and sediment build-up.

In the current 25-year net benefit analysis using a 5 percent discount rate, the project yields an Economic NPV of USD 3,312 million (ETB 92.7 billion) and has a benefit cost ratio of 3.8. The Economic IRR is 47%. The payback period is 5.3 years. In economic investment analyses, the Project therefore meets the requirement by yielding a rate of return higher than the economic discount rate of 5%. Note that, a 25-year model is used to account for the long-term gradual build-up of benefits from SLM interventions combined with a 5-year implementation phase followed by 20-year capitalization phase for forest plantations and green corridors.

World Bank guidelines recommend using a 5% economic discount rate.[20] Increasing the discount rate from 5% to 10% reduces project returns by 51% to USD 1,617 million. Project returns are still considerable at a 10% discount rate with a BCR of 3.2.

If the Project only reaches half of the targeted area for example due to unexpected cost increases, estimated project returns fall by 53% to USD 1,560 million and the rate of return drops from 47% to 26%.

If base case assumptions are too conservative or climate change leads to accelerated soil erosion in the future, the estimated net benefit of Project interventions would be higher. When assuming a 50% increase in annual soil loss by year 25 the estimated economic return is USD 3,462 million with a 47% rate of return. Under this accelerated soil erosion scenario, the estimated Project net benefit of avoiding this larger soil erosion is therefore USD 150 million across the 25-year period. In the base case, estimated value of soil erosion varies between USD 0.11 and 0.26/tonne soil per year depending on the gross margin value of different land uses. In the scenario with accelerated soil loss, this estimated value ranges between USD 0.17 and 0.38/tonne soil per year.

20 World Bank (2015). Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects. Washington, DC.

When excluding the social value of reduced GHG emissions, the net economic project return is USD 2,238 million (ETB 62.7 billion) with a benefit cost ratio of 2.9, an EIRR of 29% and a payback period of 7.3 years. This is 3.1% of Ethiopia's GDP in 2016 terms.

When excluding the GHG emissions, 49% of incremental net benefits are generated through activities on non-cropland areas, particularly due to the transformation of 41,000 ha from bush and grassland to forest plantation but also due to avoided soil erosion. This constitutes an ENPV of USD 108 per year per treated hectare and an EIRR of 43%. A substantial part of Project returns is also generated by cropland and livestock production at USD 49/ha/year and USD 39/ha/year, respectively. Much of the incremental benefit estimated from cropland comes from transforming 30,000 ha of unproductive land to green corridor plantations and some is from avoided soil erosion. With exacerbated problems from climate change, forest plantations and green corridors will enhance watershed restoration and ecological connectivity as well as extend the lifespan and resilience of drainage, irrigation, and road infrastructure.

In financial terms the NPV is USD 696 million (ETB 19.5 billion) with a Financial IRR of 28%, a benefit cost ratio of 2 and a payback period of 7.5 years. This estimated net return constitutes 1% of Ethiopia's GDP in 2016. In the financial analysis a 12% discount rate is used to reflect the opportunity cost of capital in Ethiopia.

By supporting the establishment of financially viable enterprises in the area, the Project helps build resilience and future self-sufficiency. Without Project support for initial investments and working capital, CSRPs may be financially viable to also cover future capital maintenance costs, but only if available commercial loan interest rate is below their FIRR of 18-21% and a payback period of over 5 years. Initial information indicates that commercial loans for investments may be available at this rate but not the size of loans required. It can be expected that demonstrated implementation of CSRPs can reduce commercial banks' future risk perception. CSRPs can improve their financial viability to an FIRR over 24% for example by using more of their available storage capacity, obtaining a matching investment grant and reducing their initial working capital requirements. To be financially viable, the CSRPs will require project support to cover their initial investment costs in the absence of commercial loans at favorable rates. As part of an exit strategy, this increased level of return would also enable them to cover assumed future capital maintenance costs.

The National Poverty Line for Ethiopia is a measure of absolute poverty. The poverty line indicates the money required for food to provide the minimum required caloric intake (Food Poverty Line) and additional non-food items. In the financial analysis, estimated farm-level gross margins can increase by over USD 101/year/person (including the value of production used for home consumption), which is 1.2 times the Food Poverty Line (USD 85/person/year in 2018 terms), or 63% of the National Poverty Line (USD 162/person/year). This is a direct measure of increased resilience in the Project area.

The planned investment Project is expected to yield high returns even when considering key risk factors such as: yield and price changes; adoption rates; and project delays. As part of a risk management plan, it is particularly important to ensure that farmers can negotiate and obtain fair output prices and achieve target yields going forward. Part of the risk management plan could also be to ensure that planned CSRPs are used to their full capacity and that they receive sufficient financial support toward initial investment and working capital costs to ensure their financial viability. Close monitoring and support for target farmers and communities to implement water management plans could help increase the adoption rate. While not always avoidable, project delays can be minimized with close monitoring and by ensuring implementation does not lose momentum.

The full economic and financial analysis is provided in Annex E.1.

Economic and financial justification for the concessionality that GCF provides

Despite Ethiopia's Debt Sustainability Assessment having rated the risk of debt distress as high, the Ethiopian Government has agreed to take on significant debt for this project, with $100 million in loans to be provided by IDA and a request of an additional $107 million in loans from GCF. In addition to the $100 million in loans, $31 million in grants is provided as co-financing, bringing the percentage of grant funding in the co-finance to 24%. $58 million in grant finance is also requested from GCF, bringing the percentage of grant funding in the GCF financing to 35%. GCF funding will be used for the introduction at scale of climate smart agriculture. While some of the individual activities included in the package of measures for CSA may be business as usual in other parts of the world, they are new to the target population of smallholder farmers in Ethiopia. In particular, the implementation of such measures in a coordinated way as part of a larger package faces multiple barriers. RLLP has been designed to mitigate these barriers to a degree sufficient that upon project end it is expected that the measures will continue to be implemented without concessional finance. However, for their introduction at scale highly concessional funding is essential. The

initial validation of the package of measures is being conducted as part of SLMP2. GCF financing is required to scale up implementation in all watersheds covered by RLLP subsequent to the pilot phase, in which the package is being validated in 30 watersheds as part of SLMP2.

While beneficiaries will derive some private benefits as a result of the implementation of this package of measures, these beneficiaries are vulnerable rural smallholder farmers facing food, land tenure and water insecurity. Any benefits derived will be used to increase food and water security and cover other basic needs. Due to the high risk aversion of such a population and the fact that it is overwhelmingly unbanked, it would not be feasible to pass on the cost of any loans to the beneficiaries.

Activities for the expansion of SLM, the development of income opportunities and resilient livelihoods as well as those improving the enabling environment will also be funded by GCF finance.
The Economic Net Present Value (ENPV) is USD 3,312 million discounted at 5% over a 25-year period (ETB 92.7 billion). This generates a benefit cost ratio (EBCR) of 3.8 and an Economic Internal Rate of Return (EIRR) of 47% with a payback period of 5.3 years. In economic investment analyses, the project therefore meets the World Bank requirement by yielding a rate of return higher than the economic discount rate of 5%.

Financial viability for this investment in the long run is ensured, because once the barriers to implementation of sustainable land management and climate smart agriculture practices promoted by the project have been removed and the project has established mechanisms to encourage their implementation, individual farmers will see their incomes rise. Those practices that are implemented at the farm level will have short payback times that will motivate farmers to continue with these practices in the long run beyond the project's intervention. Furthermore, institutions will be established to ensure that communities continue to maintain collective infrastructure that has been established. The resilient livelihood interventions that are also part of the project will strengthen the project's impact and further ensure long-term maintenance. Private sector development will mean households will see a sustainable increase in income, which will in turn provide an incentive for them to continue maintaining the green infrastructure and climate resilient agricultural practices introduced by the project.

By supporting the establishment of financially viable enterprises in the area, the Project helps build resilience and future self-sufficiency. Without the support of the project for initial investment and working capital, CSRPs might be able to cover future capital maintenance costs, but only if the commercial interest rate is below their FIRR of 18-21% and if the payback period is greater than five years. Initial information indicates that commercial loans for smaller investments may be available at this rate, but not the size of loans required. CSRPs can, however, improve their ability to afford an FIRR over 24% by using more of their available storage capacity, obtaining a matching investment grant, or reducing their initial working capital requirements. To be financially viable, the CSRPs will require project support to cover the initial investment costs in the absence of commercial loans at favorable rates. As part of an exit strategy, this increased level of return would also enable them to cover estimated future capital maintenance costs.

Ongoing sustainable land management activities in Ethiopia have resulted in the development of a number of guidelines for the types of interventions included in RLLP. Additional guidelines covering issues not yet dealt with in the existing guidelines are under development.

The following guidelines will be used to ensure that best available technologies and practices are applied in the project:

Guidelines already developed and updated:

1. Climate Smart Agriculture (CSA) field manual
2. Income Generating Activities (IGA) guideline
3. HM&E Guideline
4. Gender Mainstreaming Guideline
5. Watersheds Performance Assessment and exit strategy guideline (PA&ES)
6. SLM Best Practice identification guideline
7. Below Woreda Level Data Collection Guideline
8. ESMF guideline (translated into three local languages - Amharic, Oromiffa and Tigrigna)
9. Value Chain Development in SLMP Context
10. Bamboo Development Training Manual
11. Training Manual for FTC Support (HIV)
12. LAU Implementation Strategy
13. Communication Strategy

14. Stakeholders Participation Strategy

Guidelines under development:

1. CBPWDG - Community Based Participatory Watershed Development Guidelines ESIF
2. Capacity Development Guideline
3. Rehabilitated communal Land, use and management
4. Small Scale Irrigation
5. Bamboo Development Strategy
6. Payment for ecosystem services (PES)

Quality assurance and sustainable delivery of training is ensured by the SLM Best Practices Task Force. The SLM Best Practices Task Force was established in August 2011 with a view to expediting the process of screening, documenting, dissemination and expanding SLM best practices across the country. The Task Force comprises members from government organizations and development partners whose expertise relates to sustainable land management. By 2015, it had already achieved impressive results, identifying 105 SLM technologies and 9 SLM approaches with best-practice potential. The screening criteria to help categorize and prioritize SLM practices are described in Annex A.2.

The SLM Best Practices Task Force has the following responsibilities:
• To provide initial training to national and regional experts who then train woreda experts and development agents;
• To pre-screen the list of existing SLM practices against the established criteria;
• To validate the list of pre-screened existing practices with SLM experts (in a validation workshop);
• To submit screened and approved SLM practices to the SLM TC for approval;
• To oversee the documentation of each screened SLM best practice as per the description form provided.

After the SLM Best Practices Task Force is eventually dissolved, the national-level structure (such as the case team or coordination unit of the Natural Resource Management Directorate) must take over the responsibility of both continuing an effective system of best-practice documentation and building capacity of staff and other stakeholders.

D. E. LOGICAL FRAMEWORK

This section refers to the project/programme's logical framework in accordance with the GCF's Performance Measurement Frameworks under the Results Management Framework to which the project/programme contributes as a whole, including in respect of any co-financing.

E.1. Paradigm shift objectives

Please select the appropriated expected result. For cross-cutting proposals, tick both.

☐ Shift to low-emission sustainable development pathways

☒ Increased climate resilient sustainable development

E.2. Core indicator targets

Provide specific numerical values for the GCF core indicators to be achieved by the project/programme. Methodologies for the calculations should be provided. This should be consistent with the information provided in section A.

E.2.1. Expected tonnes of carbon dioxide equivalent (t CO_2 eq) to be reduced or avoided (mitigation and cross-cutting only)	Annual	1,752,000 CO_2 eq	
	Lifetime	43,800,000 t CO_2 eq	
E.2.2. Estimated cost per t CO_2 eq, defined as total investment cost / expected lifetime emission reductions (mitigation and cross-cutting only)	(a) Total project financing	296,237,602 USD	
	(b) Requested GCF amount	165,237,592 USD	
	(c) Expected lifetime emission reductions	43.9 mn t CO_2eq	
	(d) Estimated cost per t CO_2eq (d = a / c)	6.75 Choose an item. **/ t CO_2eq**	
	(e) Estimated GCF cost per t CO_2eq removed (e = b / c)	3.76 Choose an item. **/ t CO_2eq**	
E.2.3. Expected volume of finance to be leveraged by the proposed project/programme as a result of the Fund's financing, disaggregated by public and private sources (mitigation and cross-cutting only)	(f) Total finance leveraged	131 mn USD	
	(g) Public source co-financed	131 mn USD	
	(h) Private source finance leveraged	____ Choose an item.	
	(i) Total Leverage ratio (i = f / b)	0.79	
	(j) Public source co-financing ratio (j = g / b)	0.79	
	(k) Private source leverage ratio (k = h / b)	____	
E.2.4. Expected total number of direct and indirect beneficiaries, (disaggregated by sex)	Direct	4,168,000 Of which 50% are female	
	Indirect	26,244,000 Of which 50% are female	
	For a multi-country proposal, indicate the aggregate amount here and provide the data per country in annex 17.		
E.2.5. Number of beneficiaries relative to total population (disaggregated by sex)	Direct	4.0% (Expressed as %) of country(ies)	
	Indirect	25.0% (Expressed as %) of country(ies)	
	For a multi-country proposal, leave blank and provide the data per country in annex 17.		

E.3. Fund-level impacts[21]

Select the appropriate impact(s) to be reported for the project/programme. Select key result areas and corresponding indicators from GCF RMF and PMFs as appropriate. Note that more than one indicator may be selected per expected impact result. The result areas indicated in this section should match those selected in section A.4 above. Add rows as needed.

Expected Results	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term	Final	
M4.0 Reduced emissions from land use, reforestation, reduced deforestation, and through sustainable forest management and conservation and enhancement of forest carbon stocks	*M4.1 Tonnes of carbon dioxide equivalent (t CO2 eq) reduced or avoided (including increased removals) - forest and land use*	Based on inputs from M&E reporting. Periodic surveying by independent 3rd party to sample treatment areas to verify22.	0	2,948,153 t CO2 eq	5,621,615 t CO2 eq	Net change in CO2 emissions is calculated using the ExAct carbon balance estimation tool for a lifetime of 25 years is 43,800,000 t CO2 eq. Mid-term target is for 2.5 years while final target if for 5 years.
A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions	*A1.2 Number of males and females benefiting from the adoption of diversified, climate resilient livelihood options (including fisheries, agriculture, tourism, etc.)*	Covered as part of the beneficiary survey conducted by independent 3rd party.	0	Total: 238,560 Of which female: 130,760	Total: 596,400 Of which female: 326,900	Measured as the number of land users adopting SLM practices. Target is based on 40% of adults in project area adopting. Women are targeted at a higher rate of 45%.
Choose appropriate expected results	*Choose appropriate indicators*					

E.4. Fund-level outcomes

Select the appropriate outcome(s) to be reported for the project/programme. Select key expected outcomes and corresponding indicators from GCF RMF and PMFs as appropriate. Note that more than one indicator may be selected per expected outcome. Add rows as needed.

Expected Outcomes	Indicator		Baseline	Target	Assumptions

[21] Excludes impacts of 18 watersheds supported by Expected MDTF Government of Canada, which will be determined in later stages of funding appraisal

22 Specific company/firm has not been selected for 3rd party verification. A competitive request for proposals would be issued to select a suitable firm. If using EX-ACT as proposed here, the firm would be responsible for verifying the figures used (conduct a representative sample and collect the necessary data).

		Means of Verification (MoV)		Mid-term)	Final	
M9.0 Improved management of land or forest areas contributing to emissions reductions	*M9.1 Hectares of land or forests under improved and effective management that contributes to CO2 emission reductions*	Based on inputs from M&E reporting. Periodic surveying by independent 3rd party to sample treatment areas to verify.	406,000 ha	1,003,200 ha	1,899,000 ha	The entire area of the (micro) watershed is considered treated when the multi-year development plan is complete.
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	*A7.1 Use by vulnerable households, communities, businesses and public-sector services of Fund-supported tools instruments, strategies and activities to respond to climate change and variability*	Covered as part of the beneficiary survey conducted by independent 3rd party and project reporting.	0	Number of individuals: 180,240 Of which women: 100,120	Number of individuals: 450,600 Of which women: 250,300	Measures the number of individuals participating in income generating activities supported by the project. Target reflects adoption by 30% of adults. Women are targeted at a higher rate of 35%. This indicator will draw on a number of questions included as part of the beneficiary survey. A score card approach will be developed focusing on the adoption of tools and strategies including participation in income generating activities.

A8.0 Strengthened awareness of climate threats and risk-reduction processes	*A8.1 Number of males and females made aware of climate threats and related appropriate responses*	Covered as part of the beneficiary survey conducted by independent 3rd party.	n/a	Number of individuals: 480,100 Of which women: 264,000	Number of individuals: 1,200,400 Of which women: 660,200	Awareness raising activities reach 80% of the land users in the area targeted (women targeted at a higher rate). This indicator will draw on a number of questions included as part of the beneficiary survey. A score card approach will be developed to assess awareness to climate threats and related issues.

E.5. Project/programme performance indicators[23]

The performance indicators for progress reporting during implementation should seek to measure pre-existing conditions, progress and results at the most relevant level for ease of GCF monitoring and AE reporting. Add rows as needed.

Expected Results	Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions
				Mid-term	Final	
Land Restoration and Watershed Management	Land area under sustainable landscape management practices	Based on inputs from M&E reporting. Periodic surveying by independent 3rd party to sample treatment areas to verify.	406,000 ha	1,003,200 ha	1,899,000 ha	The entire area of the (micro) watershed is considered treated when the multi-year development plan is complete.
Land Restoration and Watershed Management	Land area restored or reforested/afforested	Based on inputs from M&E reporting. Periodic surveying by independent 3rd party to sample treatment areas to verify.	113,000 ha	141,400 ha	184,000 ha	It is calculated as a subset of the total land area with sustainable land management practices (indicator 1) that is treated with measures to return the land to its natural, semi-natural, or forested state. It includes habitat restoration and other conservation measures to restore biodiversity, establishment of forest on land with and without recent tree cover, gully area stabilization, degraded area closures, degraded area woodlot establishment,

[23] Excludes impacts of 18 watersheds supported by Expected MDTF Government of Canada, which will be determined in later stages of funding appraisal

						area covered by bamboo plantation on degraded area. This indicator does not include areas, which have been cleared during or in anticipation of the project. Area re/afforested refers to "establishment of forest through planting, and/or deliberate seeding on land that, until then, was not classified as forest" or "re-establishment of forest through planting and/or deliberate seeding on land classified as forest" expressed in hectare (ha). This can include also assisted natural regeneration, coppicing or other locally appropriate methods.
Land Restoration and Watershed Management	Land area with productivity enhancing practices applied	Based on inputs from M&E reporting. Periodic surveying by independent 3rd party to sample treatment	6,000 ha	76,240 ha	181,600 ha	Covers land on which Climate Smart Agriculture (CSA) practices have been adopted under the project.

		areas to verify.				
Land Restoration and Watershed Management	Project area showing an increase in Normalized Difference Vegetation Index (NDVI) correcting for climate effects	3rd party analysis	0	20%	50%	The Normalized Difference Vegetation Index (NDVI) uses the visible and near-infrared bands of the electromagnetic spectrum to analyze remote sensing measurements to determine the extent to which a target contains live green vegetation
Land Restoration and Watershed Management	Project area showing an increase in the Land Surface Water Index (LSWI) correcting for climate effects	3rd party analysis	0	20%	50%	The Land Surface Water Index (LSWI) uses the shortwave infrared and near-infrared bands of the electromagnetic spectrum to analyze remote sensing measurements to determine the amount of water in vegetation and soil.
Adoption of climate resilient diversification activities	Land users adopting sustainable land management practices as a result of the project, disaggregated by gender	Based on information collected as part of stakeholder / beneficiary survey and project reporting.	0	238,560 Of which women: 130,760 Including female headed households: 22,280	596,400 Of which women: 326,900 Including female headed households: 55,700	

Adoption of climate resilient diversification activities	Households adopting diversified livelihood activities supported by the project, disaggregated by gender of head of household	Based on information collected as part of stakeholder / beneficiary survey and project reporting.	0	99,600 Of which female headed: 17,400	249,000 Of which female headed: 43,500	The target value reflects a household adoption rate of 30 percent. Female-headed households (approx. 15% of all households) are targeted at a higher rate of 35 percent.
Adoption of climate resilient diversification activities	People participating in income-generating activities supported by the project disaggregated by gender	Based on information collected as part of stakeholder / beneficiary survey and project reporting.	0	180,240 Of which women: 100,120	450,600 Of which women: 250,300	
Adoption of climate resilient diversification activities	Functional Common-Interest Groups established or supported	Based on information collected as part of stakeholder / beneficiary survey and project reporting.	0	1,259	3,148	
Strengthening resilience through Institutions and Information	Watershed User Associations established and strengthened	Project reporting.	0	75	188	Watershed Management and Use Plan that has been approved locally by the community user group, and either the Woreda or regional SLMP coordination platform. Micro watershed land management and use plans, established by farmers user associations, detail management and use for treated areas,

						outline agreements with the Kebele Watershed Team to conserve and utilize the resources, and outlines bylaws for managing and implementing conservation activities and the distribution/sharing of benefits. The development of these plans are a critical for ensuring land resources are used and managed in a way that enhances absorptive and adaptive capacity to climate change, promoting resilience broadly at the landscape level.
Strengthening resilience through Institutions and Information	Watershed User Associations with Watershed Management and Use Plan	Project reporting.	0	59	148	
Strengthening resilience through Institutions and Information	Woreda information centers being effectively used by project stakeholders	Functionality and effectiveness tracked as part of the stakeholder/beneficiary survey and project reporting.	0	66	166	The functionality and effectiveness of these information centers is expected to be tracked as part of the stakeholder/beneficiary survey using a scorecard

						approach to assess the quality of services.
Improved tenure security to Incentivize long-term investments in SLM	Parcels of land surveyed and mapped for certification	Processed centrally using information extracted from NRLAIS database.	2,034,000	3,296,400	5,190,000	This includes the number of individual and communal land parcels surveyed (using one or a combination of GPS, total stations, ortho-photo, or satellite imagery), mapped and registered with the woreda land administration office as part of second-level land certification activities. Interventions that increase tenure security and define the associated rights provides holders with an incentive to take a long-term term perspective when managing the land resources and undertaking investments, increasing productivity and enhancing resilience trough adaptive and transformative means.
Improved tenure security to Incentivize long-term investments in SLM	Households who have received second level land holding certificates,	Processed centrally using information extracted	484,000 Of which women individuall y or	743,200 Of which women individua	1,132,000 Of which wome n	Second-level certification differs from the earlier first-level certification

	disaggregated by gender	from NRLAIS database.	jointly with a man: 328,000	lly or jointly with a man: 521,800	individ ually or jointly with a man: 812,5 00	program by providing additional spatial (i.e. location and boundary) data in the form of a parcel map. Interventions that increase tenure security and define the associated rights provides holders with an incentive to take a long-term term perspective when managing the land resources and undertaking investments, increasing productivity and enhancing resilience trough adaptive and transformative means.
Improved tenure security to Incentivize long-term investments in SLM	Second level land certificates issued as a result of the project	Processed centrally using information extracted from NRLAIS database.	0	1,060,80 0	2,652, 000	
Improved tenure security to Incentivize long-term investments in SLM	Landless youth that received certificates in exchange for the work, disaggregated by gender	Project reporting.	14,000 Of which women: 4,200	22,260 Of which women: 6,748	34,65 0 Of which wome n: 10,57 0	

E.6. Activities

All project activities should be listed here with a description and sub-activities. Significant deliverables should be reflected in the implementation timetable. Add rows as needed.

Activity	Description	Sub-activities	Deliverables[24]
1.1.1: Sustainable Land Management	Promotes the restoration of degraded landscapes in selected watersheds and help build resilient livelihoods.	- Soil and water conservation measures -Gully rehabilitation -Area closure management and use -Enrichment of degraded pasture and rangeland	Establish functional platform Establish Micro watershed Team Plan preparation by CWT and KWT, approval by General assembly Formulation and compilation of a Multi-Year Plan by Woreda Technical Committee

[24] Deliverables are indicative

			Construction of Soil and Water Conservation works
1.1.2 Aforestaion-Reforestation+Green Corrdior management at Zonal Level	Promotes the restoration of degraded landscapes in selected watersheds	-Establishment of green corridors -Establishment of plantation blocks	Site preparation for A/R or biological measures Approval of consolidated plan by Woreda Steering Committee & procurement of necessary inputs such as tree seed, tools and equipment Afforestation/reforestation & procurement of necessary inputs such as tree seed, tools and equipment Nursery establishment/seedling production
1.2.1: On-farm CSA 1.2.2 Training and awareness raising on CSA	Promotes resilient agriculture	-Farm water and soil moisture management -Integrated soil fertility and soil health management -Crop development and management -Environmentally-friendly livestock production through forage development and management	Organizing Common Interest Groups (20-30 farmers) Develop robust CSA plan and prepare to implement CSA practices Coach and provide support for the CIGs during implementation of CSA practices & procure necessary inputs, tools and equipment Nursery establishment/seedling production Land preparation for CSA implementation coach and provide support for the CIGs during implementation of CSA practices & procure necessary inputs such as seed Evaluation

1.3.1 IGAs and Connection to Value Chain	Support resilient livelihoods.	-Processing Equipment and Training -Community Storage Receipts Programs	Identify and Establish CIGs support for development of business plans for different commodities Avail equipment and other inputs including construction and establishment of CSRP Implement business plan; provide CRSP service to members Marketing including provision of CSRP service
1.3.2 Energy Efficiency Cookstoves 1.3.3 Investment Planning for Economic Development	Strengthen supply chain for RE/EE products	- Rural RE/EE Enterprise Establishment - Establish Fuel Saving Cookstove producer enterprises	Contract signing with cooperatives or/and cooperative unions and members Partner with other value chain actors
2.1.1 Kebele and Woreda Capacity Building 2.1.2 Information Modernization and Data Base Management/Policy Development 2.1.3 Technical training on cadaster and land registration 2.1.4 TA (Cluster Approach at Zonal level) 2.1.5 Policy Development 2.1.6 Capacity building at Regional level 2.1.7 TA at National level	Build capacity for the promotion and management of SLWM practices, and improve information for better decision-making in supporting resilient landscapes and diversified rural livelihoods in the project area. Support information modernization to coordinate data collection and information sharing at all levels and under all components of the project so that this information is well organized, properly documented and accessible	Technical Assistance, operating of capacity building activities and Monitoring on local level	Recruitment of training for woreda and kebele level platforms Provide awareness creation to farmers Support different CIGs to develop and adopt bylaws; conduct training needs assessment, & Provide tailor-made TOTs to at Federal, Regional, woreda and community level Provide additional TOTs technical advisors for specific outputs linked to CIGs in sub-component 1.1, 1.2 & 1.3 Provide technical support to on-the-ground operations/implementation Exposure visit of technical advisors for specific outputs linked to CIGs in

			sub-component 1.1, 1.2 & 1.3 Provide refresher TOT technical advisors for specific outputs linked to CIGs in sub-component 1.1, 1.2 & 1.3
2.2.1 Impact Evaluation (IE) 2.2.2 Knowledge Management and Communication		Monitoring and Evaluation	Initiate impact evaluation research/study Identify materials for woreda information center establishment Construction of woreda information center Develop communication material Consultation on communication material completed Impact evaluations; dissemination of knowledge products Knowledge sharing/networking events Support associations to develop Watershed Management and Use plans
3.1.1-Second Level Landholding Certification (SLLC)	Strengthens the rural land administration system that secures tenure rights, optimizes land use, and empowers land-users to sustainably invest in productive landscapes. Improves security of tenure to smallholder farmers in RLLP watersheds through SLLC as an incentive to increase the adoption of SLM technologies and practices.	Participatory Local Land Use Planning and Development Control	orthophoto base map preparation consultations on land rights using orthophoto base maps scanning and geo-referencing of adjudication maps, vectorization of parcel boundaries and keying-in of attribute information public display for validating parcels (shape and size) and landholders' Information

			parcel map and Landholding Certificate preparation, production, authentication and issuance support development, testing, and roll-out of National Rural Land Administration Information System

E.7. Monitoring, reporting and evaluation arrangements (max. 500 words, approximately 1 page)

Besides the arrangements (e.g. annual performance reports) laid out in AMA, please give a summary of the project/programme specific arrangements for monitoring and evaluation. Please provide the types of interim and final evaluations. Describe Accredited Entity (AE) project reporting relationships, including to the NDA/Focal Point and between AE and Executing Entity (EE) as relevant, identifying reporting obligations from the EE to the AE. This should relate to the frequency of reporting on project indicators, implementation challenges and financial status.

The institutional arrangements for M&E will encompass four levels that are well aligned with the RLLP institutional and implementation arrangement.

Federal Level. The federal level sets the expectations for what is to be accomplished in M&E and oversees that capacity, ensuring skills and tools are available for staff in the regions and at field level. Federal level M&E staff ensure that data collected meet quality standards, review aggregated field data to analyze and pull out program level results and trends and identify best practices important for scale up. The federal level M&E staff prepare reports to the government and donors and provide feedback to stakeholders. The Federal M&E team will include: a Senior M&E/Evaluator, a Senior Data Analyst/ MIS Specialist, a Senior Communication/Knowledge Management Specialist, and a Documentation/Planning and Reporting Specialist. The team will also provide: technical assistance to develop a new Results-Based M&E (RBME) plan, manual and indicator protocols; TA support in M&E Training (various topics including advanced excel, data analysis and reporting, and evaluation practice); a functional web-based data management system (in English and local languages), which will help to aggregate mobile application data and collect geo spatial data.

Regional Level. The regional level leads the rollout of the M&E system to the field; builds skills and capacity in regional and field level stakeholders; ensures that data collected meet quality standards; aggregates field data to analyze and pull out regional levels results and trends and identify best practices important for scale up; prepares reports to the government and donors and provides feedback to stakeholders. The regional team will include a M&E Specialist and a Communication/Knowledge Manager/Spatial Analyst. The team will also support: special studies in the region, involve regional officers in Joint Monitoring Missions (JMM), improved data management system in English and local languages, and incentives for good regional performance, TA for training using TOT approach.

Zonal level. RLLP will strengthen the functionality of the zonal government structures/offices, mainly the Agriculture and Natural Resources Office. The project will provide a budget allocation at the zonal level to provide staff to support regional technical capacity and mentoring, conduct data quality assessments, provide clear guidance on which data to collect and how, and provide ongoing M&E training and capacity building in M&E.

Woreda Level. This level identifies watershed needs and completes annual workplans and budgets, making sure that activities get rolled out on time. The woreda team includes the NRM process owner and technical expert, who receive data from the DAs and aggregate results to determine whether activity implementation is occurring at the right scale. They prepare reports based on results achieved. Woreda officers are supported by regional and federal M&E staff (particularly in completing reports).

Kebele Level. Development Agents (DAs) play a significant role at kebele level. Clear guidance is needed for DAs on what and how to collect data (strengthen data collection methods), to strengthen ongoing M&E training and capacity building, and to provide educational opportunities/exchange visits to DAs assigned to follow-up project activities to help motivate them and reduce frequent turnover.

Community Level. There are several levels of community members who are involved in M&E, but the Community Facilitator (CF) is the main project interlocuter. Foremen/Forewomen, nursery operators and self-help group leaders collect data and pass it to the CF, who also collects additional household level data. The CF aggregates data and passes it to the Community Watershed Team (CWT). The CF is a member of the CWT and serves as a secretary. The CWT reviews and approve the data and informs the CF to send it to the concerned DA in the respective kebele. The DA presents the data to the Kebele Watershed Team (KWT) for review and approval, and finally sends the approved data to the woreda office.

The methodology for monitoring key outcomes of the project is as follows:

Land area under sustainable landscape management practices: this indicator counts as treated the total area of a micro watershed once all the prescribed soil and water conservation measures identified in the relevant Multi-Year Development Plan (MYDP) have been fully implemented.

Net GHG greenhouse emissions: estimated using the ExAct carbon balance estimation tool, which calculates carbon accumulation and emissions based on project biophysical output data. The economic lifetime of the project is assumed to be 25 years (5 implementation and 20 post-project years, the same time horizon used in the Economic and Financial Analysis).

Households adopting diversified livelihood activities supported by the project: this is measured as the percent of households engaging in approved, non-traditional activities, relative to the total number of households in the project area. The definition of what constitutes the set of potential non-traditional activities will be set during implementation and applied to activities that are expected to reduce households' vulnerability to future shocks associated with extreme weather events and climate change by diversifying livelihood activities and increasing the resilience of natural (i.e. land) resources.

A beneficiary survey conducted by an independent 3rd party will be conducted in the first year, at mid-term and at completion of the project. Administered to households as well as at the woreda and kebele administrative levels, the beneficiary survey – a tool normally used to help improve the quality of development operations - will be enhanced and expanded to support monitoring and verification of key indicators including adoption of diversified livelihood activities and SLM practices as well as awareness of climate threats and appropriate responses.

An **M&E operational manual** will be developed that defines the function of the program level M&E system and its nested RLLP level M&E systems. The manual will embed the tracking of the main GCF indicators related to avoided emissions and number of beneficiaries of the project.

See Annex D.3 RLLP Gender Approach and Annex D.4 RLLP Gender Action Plan for further information on statements in terms of number of women involved in the activities. Baseline data for Gender are not available, however, the RF provides an alternative way to track progress (e.g., starting from baseline of N/A or “0,”) the indicator measures incremental changes/values throughout project implementation to demonstrate progress.

E. RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures (max. 3 pages)

Please describe financial, technical, operational, macroeconomic/political, money laundering/terrorist financing (ML/TF), sanctions, prohibited practices, and other risks that might prevent the project/programme objectives from being achieved. Also describe the proposed risk mitigation measures. Insert additional rows if necessary.

For probability: High has significant probability, Medium has moderate probability, Low has negligible probability
For impact: High has significant impact, Medium has moderate impact, Low has negligible impact
Prohibited practices include abuse, conflict of interest, corruption, retaliation against whistleblowers or witnesses, as well as fraudulent, coercive, collusive, and obstructive practices

Key Financial and Operational Risks

In the identification of key risks and their rating, the size of the project was taken into account. While several risks to achievement of project objectives have been identified, the experience gained during implementation of SLMP-2, as well as the significant resources allocated in the past 5 years for coordination and capacity building efforts are expected to be instrumental in implementing measures to address the key financial and operational risks identified below:

- Political and governance risk: Although the state of emergency ended in June 2018, sporadic civil unrest in project areas continues to be a risk to implementation. Implementation of SLM activities continues in all highland regions, however, there remains a risk that preparation and/or implementation of the proposed operation could slow or be suspended due to a potential re-emergence of civil disturbances. Institutional capacity for implementation and sustainability risk: While considerable capacity for SLM interventions exists in current SLM project areas, limited institutional and human capacity in proposed new project areas contribute to this risk, which is mitigated through a project design including significant training and coordination at the national level.

- Fiduciary risk: Issues related to procurement and financial management have been observed in previous projects. However, implementation of the WB-supported SLMP2 has developed significant capacity for procurement and financial management, that are currently rated satisfactory and moderately satisfactory, respectively.

- Stakeholder risk: This includes (i) weak multi-sectoral coordination, and (ii) risk of potential elite capture of project benefits at the local level and exclusion of some stakeholders, particularly underserved members of targeted communities. These are addressed through intersectoral coordination mechanisms at the Federal, Regional and woreda levels, strong communication measures, and a grievance redress mechanism.

An Implementation Support Plan has been developed that describes how the World Bank will support the implementation of the risk mitigation measures identified in the risk matrix.

Selected Risk Factor 1

Category	Probability	Impact
Governance	High	Low
Description		

Please describe the risk to the best of your knowledge at this point in time.

Political and governance risk. The GoE declared a state of emergency from October 2016 to August 2017, which was re-instated in February 2018 but ended in June 2018. Although the situation has stabilized since the nomination of a new Prime Minister in April 2018, there remains a risk that implementation of the proposed operation could be negatively impacted should civil disturbances recur.

Mitigation Measure(s)

While the extent to which project-specific measures can mitigate this risk is limited, the RLLP will adopt the approach of other Bank-financed operations, including: (i) careful supervision mission planning that emphasizes security; (ii) strategic communication and outreach; (iii) sound safeguards monitoring building on SLMP-II experience and capacity; and (iv) enhanced transparency in project-supported activities. RLLP will also contribute to alleviating some of the drivers of civil unrest, including natural resource degradation and rural landlessness and joblessness.

Selected Risk Factor 2

Category	Probability	Impact
Technical and operational	Medium	Medium

Description

Please describe the risk to the best of your knowledge at this point in time.

Institutional capacity for implementation and sustainability risk due to a number of issues including: (i) the restructuring of the GIZ program in support of SLM; (ii) the limited human resources available at the field level; (iii) the challenge of implementing a reliable and cost-effective M&E system; and (v) weak coordination among institutions and programs, including between the NRM Directorate of MoA and the PCU.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

This set of risks will be mitigated through: (i) continual training on project management and monitoring at all levels, in coordination with the GIZ SURED project; (ii) project implementation arrangements acceptable to the World Bank and agreed by the MoA and regional governments clarifying accountability and targets at all levels; and (iii) coordination between development partners and Technical Committee on SLM.

Selected Risk Factor 3

Category	Probability	Impact
Other	Medium	Low

Description

Please describe the risk to the best of your knowledge at this point in time.

Fiduciary risk due to persistent issues related to procurement and financial management. Although SLMP-II has only had "unqualified" audits to date, which is excellent, there has been high turnover of project fiduciary staff.

Mitigation Measure(s)

Please describe how the identified risk will be mitigated or managed. Do the mitigation measures lower the probability of risk occurring? If so, to what level?

Mitigation of this risk centers on MoF's recent increase and harmonization of salaries for project procurement and financial management staff.

G.GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment (max. 750 words, approximately 1.5 pages)

Provide the environmental and social risk category assigned to the proposal as a result of screening and the rationale for assigning such category. Present also the environmental and social assessment and management instruments developed for the proposal (for example, ESIA, ESMP, ESMF, ESMS, environmental and social audits, etc.). Provide a summary of the main outcomes of these instruments. Present the key environmental and social risks and impacts and the measures on how the project/programme will avoid, minimize and mitigate negative impacts at each stage (e.g. preparation, implementation and operation), in accordance with GCF's ESS standards. If the proposed project or programme involves investments through financial intermediations, describe the due diligence and management plans by the Executing Entities (EEs) and the oversight and supervision arrangements. Describe the capacity of the EEs to implement the ESMP and ESMF and arrangements for compliance monitoring, supervision and reporting. Include a description of the project/programme-level grievance redress mechanism, a summary of the extent of multi-stakeholder consultations undertaken for the project/programme, the plan of the Accredited Entity (AE) and EEs to continue to engage the stakeholders throughout project implementation, and the manner and timing of disclosure of the applicable safeguards reports following the requirements of the GCF Information Disclosure Policy and Environmental and Social Policy.

Describe any potential impacts on indigenous peoples and the measures to address these impacts including the development of an Indigenous Peoples Plan and the process for meaningful consultation leading to free, prior and informed consent, pursuant to the GCF Indigenous Peoples Policy.

Attach the appropriate assessment and management instruments or other applicable studies, depending on the environmental and social risk category as annex 6.

The RLLP has been assigned as an EA category of B, for the potential social and environmental impacts on humans and sensitive areas (wetlands, forests, natural habitats, etc...) are less adverse, site specific, few if any of them are irreversible. The ESMF was required to comply with not only the relevant national policy and legal frameworks but also with the applicable environmental and social safeguard policies of the World Bank. Based on the framework of SLMP-II, and considering its principal features and aspects, the RLLP social assessment was carried out and updated with the following major objectives in focus:

- Assess key socio-economic factors that require consideration;
- Identify vulnerable and historically underserved groups that may be excluded from the project and be adversely affected as a result, and the necessary impact mitigating measures.
- Assess any potential adverse social impacts of RLLP, and determine whether the project is likely to trigger the World Bank social safeguards policies;
- Recommend in the early stage of project preparation the appropriate measures towards addressing World Bank requirements on social safeguards triggered by the project (OP/BP 4.10 and OP/BP 4.12).

In line with the Ethiopian Government's decentralization policy, organizational structure and implementation arrangement and with due consideration to the implementation of project activities at the grassroots level, RLLP is designed to operate at federal, regional, zonal, *woreda kebele* levels as well as the beneficiary community level. The monitoring and evaluation (M&E) and reporting system of the project is in-built in the implementation arrangement to be executed at all levels of the organizational structure. The institutional arrangement includes RLLP related conflict/grievance redress mechanism/GRM, consisting of community watershed teams, indigenous local institutions, kebele watershed teams, and people from woreda agriculture and natural resources offices.

In RLLP the environmental and social management process starts with the sub-project planning process during the identification of sub-projects by local communities based on their needs and priorities through a participatory

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

Monitoring of environmental and social safeguard performance of the project will be conducted regularly. Performance monitoring will ensure that safeguards instruments are prepared and approved to the required standard and the proper implementation of ESMP, SA, RPF and GMGs. While the implementation of ESMP is done by the community at kebele level with the responsibility of the woreda implementing offices, performance monitoring will be done by the RLLP-PCU environmental and social safeguard specialists at national and regional level and other stakeholders. The results of the monitoring involve the monitoring compliance and effectiveness of the safeguards instruments, and the overall environmental, socio-economic and climate-related assessment of the Program's interventions. The monitoring will be done on an annual and quarter basis by the RPCU Specialists with support from the NPCU Environmental and Social Safeguards Specialists, M&E Specialist and WB's Environmental Safeguards, Social Safeguards and Social Development team.

Quarterly and annual reviews workshops will be held at regional and national level with a view to enhance the positive performances of ESMF, SA, RPF and the Gender Mainstreaming Guideline identifying bottlenecks and gaps in implementing the ESMF and proposing solutions in addressing the gaps. Environmental and social auditing will be done by the RLLP concerned specialists (both federal and regional) and field verification by independent consultants to be recruited. This auditing will be conducted twice in the program life, i.e. during MTR and completion period of the project.

The RLLP triggered OP 4.10 Indigenous People as it was determined that the physical and sociocultural characteristics of the proposed intervention areas and the people living in these sites meet the policy requirements. The decision to trigger the policy is also based on the Ethiopian Constitution, which recognizes the presence of different socio-cultural groups, including historically disadvantaged or

underserved peoples, as well as their rights to their identity, culture, language, customary livelihoods,

socio-economic equity, etc. The social safeguard issues relating to the policy are assessed through an SA and extensive consultation with potential project beneficiaries, including those identified as vulnerable

groups and underserved peoples.

G.2. Gender assessment and action plan (max. 500 words, approximately 1 page)

Provide a summary of the gender assessment and project/programme-level gender action plan that is aligned with the objectives of GCF's Gender Policy. Confirm a gender assessment and action plan exists describing the process used to develop both documents. Provide information on the key findings (who is vulnerable and why) and key recommendations (how to address the vulnerability identified) of the gender assessment. Indicate if stakeholder

consultations have taken place and describe the key inputs integrated into the action plan, including: how addressing the vulnerability will ensure equal participation and benefits from funds investment; key gender-related results to be expected from the project/programme with targets; implementation arrangements that the AE has put in place to ensure activities are implemented and expected outcomes will be achieved, monitored and evaluated.

Provide the full gender assessment and project-level gender action plan as annex 8.

Gender Considerations

Land degradation has important gender dimensions. For example, UNDP finds that land degradation increases the pressures on women differentially from men in their effort to meet practical needs of supporting their families under increasingly difficult environmental, physical, social, and economic conditions. Women are also challenged by the consequences of land and environmental degradation induced fuel-wood and water shortage, making their work even more challenging.

Analysis also indicated the constraints to women's access to equitable roles in decision-making concerning land resources and their engagement in sustainable environmental and land management such as: (a) insecure land use rights, (b) the low value assigned to labor and subsistence farming, (c) lack of access to credit and (d) lack of opportunities to gain and share technical knowledge. Further, the United Nations Convention to Combat Desertification (UNCCD) illustrated that, often 'women's inequitable access to secure property rights forces them onto marginal, fragile, highly degradable lands.

The Sustainable Development Goals (SDGs) emphasize gender equality and empowering all women and girls as not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. This is part of each of the SDGs as well as being reflected in the stand-alone goal (Goal 5), to achieve gender equality. Providing women and girls with equal access to the natural resource base and equal representation in decision-making processes will boost the returns of RLLP investment and benefit broader society. The design of RLLP will therefore create opportunities for women's equal rights to economic resources, as well as access to ownership and control over land and other forms of the natural capital, in accordance with GoE laws.

Gender Dimensions of Land Degradation in Ethiopia

Understanding gender aspects of natural resources management is an entry point for reversing environmental and land degradation in RLLP landscapes. Women manage natural resources daily in their roles as farmers and household providers; typically, they are responsible for growing homestead crops, collecting fuel wood and water. Climate change disproportionately affects rural women, as they are most reliant on natural resources for their livelihoods but have fewer resources (natural, physical and social capital) to adapt to climate change and cope with climate change impacts such as droughts, landslides, and food shortages. Climate vulnerabilities affect not only women's health, productivity, and development, but also contribute to the intensification of existing gender gaps, including gender-based violence The Ethiopia Demographic and Health Survey (2016) shows that 33% of women ages 15-49 have experience physical or sexual violence; domestic violence is the most common form of violence toards women.

Gender gaps are amplified when adaptation measures fail to consider specific needs and preferences of women. Further, local cultural norms and practices have a major impact on access to natural resources and the level of engagement of women in the agriculture sector. Inequitable access and unequal playing fields have led women farmers to produce on average 23% less than their male counterparts in Ethiopia. For instance, women in rural Ethiopia have lower access to inputs such as training and technology that help increase resilience by improving agricultural knowledge. However, notwithstanding their reliance on natural resources, women have less access and control than men, despite their constitutional rights to equal land ownership, administration and use. Landless rural women often depend on common property resources for fuel wood, fodder and food. Lack of land and property ownership and control limits women's voice and agency, because assets are an important factor in bargaining power

and household decision-making, access to finance, and overall economic independence. Protection of the natural resource base is the centerpiece of the overall RLLP investment so that rural women and men will be empowered to participate in decisions that affect their needs and vulnerabilities, and in turn lend a hand in effective interventions for the conservation and sustainable use of these resources.

RLLP Gender Approach

The operational steps encompass resilience building through soil and water conservation works, enhanced tenure security, homestead and farmland development, livelihood improvements (access to improved, targeted livelihoods support in rehabilitated watersheds including creating jobs, organized cooperatives, women or girls only), climate smart agriculture, and affordable and innovative technology (household energy). For RLLP, facilitating the acquisition of improved cookstoves, will free up women's time, which could potentially enable them to engage in climate resilient livelihood diversification. Activities could include promotion of improved cookstoves, cultivating fruit trees, bamboo handicrafts, beekeeping, etc.

The RLLP components will take into account the different roles of men and women in advancing resilient livelihoods at multiple scales, and respond to the unique interests, priorities and needs of women and men in order to close gender gaps. Women and men at all levels of the RLLP decision-making should be involved as key actors in the assessment, design, monitoring, and evaluation of interventions starting from the community watershed committee. Both women and men need to benefit from a gender approach that reinforces their joint participation and equitable benefit in RLLP through participatory, inclusive approaches, including actions such as designing, implementing, and strengthening guidelines incorporating gender perspectives in the project. The RLLP program is well aligned with the WBG's Gender Strategy 2016-2023 – seeks to close gender gaps in human endowments, more and better jobs, and ownership and control of assets; and promote women's voice and agency, which constitute the four pillars of strategy.

An impact evaluation of gender innovations under RLLP is currently being carried out. The gender assessment of SLMP-II experiences helped to determine constraints and experiences that limited female and male project beneficiaries and whether women's abilities to realize equitable benefits from the natural and environmental resources were effectively improved by the project's activities/innovations.

A Gender Approach and Action Plan is included in Annex D.3. and Annex D.4., to address the gender aspects of land degradation and natural resource use. This will be further informed through an assessment of the SLMP-II gender mainstreaming strategy, which is currently underway.

G.3. Financial management and procurement (max. 500 words, approximately 1 page)

Describe the project/programme's financial management including the financial monitoring systems, financial accounting, auditing, and disbursement structure and methods. Refer to section B.4 on implementation arrangements as necessary.

Articulate any procurement issues that may require attention, e.g. procurement implementation arrangements and the role of the AE under the respective proposal, articulation of procurement risk assessment undertaken and how that will be managed by the AE or the implementing agency. Provide a detailed procurement plan as annex 10.

Financial Management

The financial management (FM) arrangements for the proposed project- RLLP will be based on the existing FM systems and structures established under SLMP-II. The FM arrangements for RLLP and SLMP II are in line with the World Bank (AE) policies and procedures. This includes the accounting capacity maintained by the implementing entity (Ministry of Agriculture and Natural Resources) at the Federal, Regional and Woreda (District) levels. SLMP II was audited in accordance with the International Standards on Auditing. The audit for the financial year ended July 7,

2017 expressed unqualified (clean) opinion but highlighted some internal control weaknesses in the management letter. This includes delays in funds flow between federal level and regional and woreda levels, weak control of advances to Woredas, weak accounting capacity in some Woredas and weak control of fixed assets in some Woredas. The project addressed these weaknesses progressively in line with an FM Action Plan agreed with the World Bank (AE).For RLLP, the Federal PCU based at the MoA will retain the overall fiduciary responsibility for the implementation of the project supported by other federal level PCU's, Regional Support Units in the six regional Bureaus of Agriculture (BoA's) and the administrations of all the implementing woredas. Project annual budgets will be prepared based on consolidated annual work plans initiated at the woreda and regional levels and compiled at the federal level. Disbursements are based on the approved budget and accounted for using quarterly interim financial reports submitted to the World Bank (AE) within 45 days after the end of each quarter. An external audit of the project will be conducted annually by the Supreme Audit Institution or an accredited private audit firm. The audit will be conducted in accordance with Terms of Reference prepared by the EE and the objective of the audit will be to ascertain whether project funds have been used for the intended purpose. The AE reviews and provides clearance for the recruitment of the auditor including clearance of the ToR.In each of the federal level-implementing entities, the six regions and all woredas will maintain segregated local currency bank accounts where project funds will be deposited and payments made. Proceeds of the IDA Credit and MDTF will initially flow into the DA before further disbursement into each of the local currency project accounts based on the approved annual work plan and budget. In addition to receiving advances through the DA, the project may use other disbursement methods such as reimbursements, direct payment and special commitment. To enhance the level of disbursements under the new project, the team will ensure prompt submission of quarterly IFRs immediately after the end of each quarter. Financial reporting for the proposed project will follow international financial reporting and auditing standards. The FM risk rating for the implementation of the RLLP is considered Substantial. An FM assessment of the implementing entities including sampled woredas has been completed and used to update the FM arrangements for the RLLP (see Annex D.5.). Procurement under the project will be carried out in accordance with the World Bank's Procurement Regulations for IPF Borrowers - 'Procurement in Investment Project Financing, Goods, Works, Non-Consulting, and Consulting Services', dated July 2016, revised November 2017 and 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', revised as of July 1, 2016, and the provisions stipulated in the Legal Agreement. A Project Procurement Strategy Document (PPSD) has been prepared by the MoA, which forms the basis for a Procurement Plan that details procurement methods, estimated costs, post/prior review requirements, etc. for each contract to be financed by project proceeds. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. Procurement of RLLP will be carried out in a decentralized manner in each of the major watersheds participating in the project. At the federal level, the PCU is the focal organization for implementation of RLLP. The BoAs and the Woreda Agricultural Development Offices shall serve as the implementing organizations of RLLP in the respective regions. The land and watershed management activities will be carried out in the existing and new watersheds in the beneficiary woredas and may involve local community participation in procurement. The project procurement plan includes community level procurement activities and targets. The procurement at community level has a separate operational guideline. Training will be provided for the community level procurement committee to improve capacity and reduce risks. Based on the threshold and procurement plan target there will be regular monitoring by district (woreda) level procurement authorities to effect payments. Regional level procurement specialists regularly monitor the procurement plan and its implementation. Moreover, during regular Joint Implementation Support Missions from the federal level procurement is one of the fiduciary components monitored. There are also internal and external audits on a yearly basis and a comprehensive independent procurement audit will be conducted for the entire project period.

Taxation: Where goods and services are procured by the project, these will be subject to income tax, import duties, withholding tax and Value Added Tax. GCF proceeds can be used to pay taxes.

Taxation of farmland is low due to the use rights of farmers. Farmer cooperatives received a tax incentive, exempting them from paying profit tax. A proposal has been submitted to exempt irrigation pumps from import tax.

Authorizations needed for project implementation: The World Bank will sign a financing agreement with the Federal Democratic Republic of Ethiopia. Once this agreement is signed, authorization for project implementation will need to

be obtained from Ethiopia's House of Parliament. During project implementation, the Steering Committee will have oversight of the project. Steering committee members include various Ethiopian government bodies, as described in Section C.7.

G.4. Disclosure of funding proposal

Note: The Information Disclosure Policy (IDP) provides that the GCF will apply a presumption in favour of disclosure for all information and documents relating to the GCF and its funding activities. Under the IDP, project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Information provided in confidence is one of the exceptions, but this exception should not be applied broadly to an entire document if the document contains specific, segregable portions that can be disclosed without prejudice or harm.

Indicate below whether or not the funding proposal includes confidential information.

☐ No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.

☐ With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:

- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
- redacted copy for disclosure on the GCF website.

The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

F. ANNEXES

H.1. Mandatory annexes

☒	Annex 1	NDA no-objection letter(s) **(template provided)**
☒	Annex 2	Feasibility study - and a market study, if applicable
☒	Annex 3	Economic and/or financial analyses in spreadsheet format
☒	Annex 4	Detailed budget plan **(template provided)**
☒	Annex 5	Implementation timetable including key project/programme milestones **(template provided)**
☒	Annex 6	E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3): **(ESS disclosure form provided)** ☐ Environmental and Social Impact Assessment (ESIA) or ☒ Environmental and Social Management Plan (ESMP) or ☐ Environmental and Social Management System (ESMS) ☒ Resettlement Policy Framework, Social Assesment
☒	Annex 7	Summary of consultations and stakeholder engagement plan
☒	Annex 8	Gender assessment and project/programme-level action plan **(template provided)**
☐	Annex 9	Legal due diligence (regulation, taxation and insurance)
☐	Annex 10	Procurement plan **(template provided)**
☐	Annex 11	Monitoring and evaluation plan **(template provided)**
☒	Annex 12	AE fee request **(template provided)**
☒	Annex 13	Co-financing commitment letter, if applicable **(template provided)**
☒	Annex 14	Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule

H.2. Other annexes as applicable

☒	Annex 15	Evidence of internal approval **(template provided)**
☒	Annex 16	Map(s) indicating the location of proposed interventions
☐	Annex 17	Multi-country project/programme information **(template provided)**
☒	Annex 18	Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
☐	Annex 19	Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
☐	Annex 20	First level AML/CFT (KYC) assessment
☐	Annex 21	Operations manual (Operations and maintenance)
☒	Annex x	Other references

** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.*

No-objection letter issued by the national designated authority(ies) or focal point(s)

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The Federal Democratic Republic of Ethiopia
Ministry of Environment, Forest and Climate Change

ቀን 18/6/2018
Date
ቁጥር 13/12.1/3975/10
Ref.No.

To: The Green Climate Fund (GCF)
Songdo Business District
175 Art center-daero
Yeonsu-gu, Incheon 22004
Republic of Korea

Re: Resilient Landscapes and Livelihood Project

Dear Madam, Sir,

We refer to the project: **Resilient Landscapes and Livelihood Project** in the Federal Democratic Republic of Ethiopia as included in the funding proposal submitted by Ministry of Agriculture and Livestock Resource to us on June 14, 2018

The undersigned is the duly authorized representative of the Ministry of Environment, Forests and Climate Change, the National Designated Authority of the Federal Democratic Republic of Ethiopia.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to **Resilient Landscapes and Livelihood Project** as included in the funding proposal.

By communicating our no-objection, it is implied that:

(a) The government of the Federal Democratic Republic of Ethiopia has no-objection to the **Resilient Landscapes and Livelihood Project** as included in the funding proposal;
(b) The **Resilient Landscapes and Livelihood Project** as included in the funding proposal is in conformity with the Federal Democratic Republic of Ethiopia national priorities, strategies and plans;
(c) In accordance with the GCF's environmental and social safeguards, the project **Resilient Landscapes and Livelihood Project** as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the **Resilient Landscapes and Livelihood Project.**

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

for Kare Chawicha
State Minister,
Environment & Climate Change

Cc:
-Honerable Minister
Ministry of Environment, Forest and climate Change

-Ministry of Agriculture and Livestock Resource
Addis Ababa

✉ 12760 E-mail: esid@ethionet.etWebsite:www.epa.gov.et
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Addis Ababa-Ethiopia

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	Resilient Landscapes and Livelihoods Project
Existence of subproject(s) to be identified after GCF Board approval	No
Sector (public or private)	Public
Accredited entity	World Bank
Environmental and social safeguards (ESS) category	Category B
Location – specific location(s) of project or target country or location(s) of programme	The project will be implemented in 210 Woredas (districts)/ watersheds in the six regions of Ethiopia, namely Oromia, Amhara, Tigray, SNNPRS, Gambella and Benishangul Gumuz.
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity's website	Thursday, January 23, 2020
Language(s) of disclosure	English
Explanation on language	English is the working language of Ethiopia
Link to disclosure	English: http://documents.worldbank.org/curated/en/807561528363713915/Environmental-and-Social-Management-Framework
Other link(s)	Ministry of Agriculture Website: English: http://www.moa.gov.et/web/guest/rllp Other Ministry of Agriculture Website: English: http://www.moa.gov.et/documents/20181/35819/Final+Updated+RLLP-ESMF.pdf/e4ca0656-070d-44a5-a95d-18d6e00a6dcb
Remarks	An ESIA consistent with the requirements for a Category B project is contained in the Environmental and Social Management Framework (ESMF).
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity's website	Thursday, January 23, 2020
Language(s) of disclosure	English
Explanation on language	English is the working language of Ethiopia
Link to disclosure	English: http://documents.worldbank.org/curated/en/807561528363713915/Environmental-and-Social-Management-Framework
Other link(s)	Ministry of Agriculture Website: English: http://www.moa.gov.et/documents/20181/35819/Final+Updated+RLLP-ESMF.pdf/e4ca0656-070d-44a5-a95d-18d6e00a6dcb

	Other Ministry of Agriculture Website: English: http://www.moa.gov.et/web/guest/rllp
Remarks	Preliminary screening for environmental and social management planning consistent with the requirements for Category B projects is contained in the ESMF that is available at the above-mentioned links. A Site-specific Environmental and Social Management Plans consistent with the requirements for Category B projects will be developed for relevant subprojects once subproject sites are identified during project implementation, in line with the process specified in the ESMF that is available at the above-mentioned links.
Environmental and Social Management (ESMS) (if applicable)	
Date of disclosure on accredited entity's website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), IPP Framework (if applicable)	
Description of report/disclosure on accredited entity's website	Thursday, February 13, 2020
Language(s) of disclosure	English
Explanation on language	English is a working language in Ethiopia.
Link to disclosure	Resettlement Policy Framework: English: http://documents.worldbank.org/curated/en/385541528357525525/Resettlement-policy-framework Social Assessment: English: http://documents.worldbank.org/curated/en/250681528364951447/Social-assessment
Other link(s)	Resettlement Policy Framework: Ministry of Agriculture Website: English: http://www.moa.gov.et/documents/20181/35819/RLLP-+AF+RPF+updated+Feb+2020+%281%29.pdf/198840cc-addc-48b1-bcc4-5487cd245109 Ministry of Agriculture Website: Social Assessment: English: http://www.moa.gov.et/documents/20181/35819/RLLP-+SA+updated+Feb.+12%2C++2020.pdf/e4ba93cd-eeb6-43ab-8680-3b013298101b

Remarks	The links to the English versions shared with the National Designated Authority, Ministry of Agriculture (MoA), Six Regional Bureaus of Agriculture. and Physical copies will also be made available Woreda Level Offices of Agriculture (OoAs).
Disclosure in locations convenient to affected peoples (stakeholders)	
Date	Thursday, February 13, 2020
Place	The links to the English versions are shared with the National Designated Authority, Ministry of Agriculture (MoA), Six Regional Bureaus of Agriculture. Physical copies are available in MoA library and Regional BoA libraries. They are also available in 107 watersheds where woreda information centers have been built under SLMP-2. In remaining watersheds, they are available at Woreda Office of Agriculture (WoAs). Also available at: World Bank Ethiopia Africa Avenue (Bole Road) Addis Ababa Ethiopia +(251) 115176000 ethiopiaalert@worldbank.org
Date of Board meeting in which the FP is intended to be considered	
Date of accredited entity's Board meeting	Monday, July 30, 2018
Date of GCF's Board meeting	Tuesday, June 23, 2020

Note: This form was prepared by the accredited entity stated above.

Secretariat's assessment of FP136

Proposal name:	Resilient Landscapes and Livelihoods Project
Accredited entity:	World Bank
Country:	Ethiopia
Project/programme size:	Large

I. Overall assessment of the Secretariat

1. The funding proposal is presented to the Board for consideration with the following remarks:

Strengths	Points of caution
High mitigation and adaptation impacts. Substantial greenhouse gas mitigation potential of 43.8 million tonnes of carbon dioxide equivalent (tCO_2eq) over 25 years and cost-effective mitigation interventions at USD 6.8 per tCO_2eq. The adaptation impact is also very high at 4.2 million direct beneficiaries, and over 26 million indirect beneficiaries.	The Resilient Landscapes and Livelihoods Project involves a large and concurrent programme of activities across 210 watersheds in Ethiopia. This implies an implementation risk, which is mitigated by the experiences of the World Bank (WB) and the Ministry of Agriculture and Livestock Resource with past projects and the scalable nature of the Resilient Landscapes and Livelihoods Project implementation approach by watershed.
The project scales up results of past interventions in sustainable land management to 210 climate-vulnerable watersheds and builds on the successful baseline of smaller projects by the Government of Ethiopia. The Resilient Landscapes and Livelihoods Project takes a bottom-up approach to watershed management at scale, and is aligned with Government strategies, which can bring a paradigm shift that cannot be achieved with previously top-down and scattered interventions.	Implementation of WB funded activities needs to be coordinated with GCF to avoid any misalignment. The WB project was approved and implementation began in April 2019, but WB stated that only preparatory activities are underway so far.
Ethiopia is a least developed country with few alternative sources of concessional finance. GCF support enables the Government of Ethiopia to pursue its ambitious programme of landscape restoration and it targets the most climate-vulnerable watersheds and communities.	

The project will generate considerable environmental, socioeconomic, and sustainable development benefits (including market integration) and responds to several Government climate change and economic development priorities.	

2. The Board may wish to consider approving this funding proposal with the terms and conditions listed in the respective term sheet and addendum XVIII, titled "List of proposed conditions and recommendations".

II. Summary of the Secretariat's assessment

2.1 Project background

3. **Background/history**. In the highlands of Ethiopia, climate change is expected to increase both annual precipitation and seasonal variability in rainfall, increasing soil erosion by 7 to 10 per cent per year and, in the more extreme scenarios, possibly by as much as 40 to 70 per cent per year by 2050. Conservative estimates suggest that, partly as a result of the increased soil erosion, climate change will reduce agricultural crop productivity in Ethiopia by 5 to 10 per cent by 2030. 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 hectares) of land has been degraded, affecting a population of 20.65 million, approximately one in five people in Ethiopia. The proposed project is therefore designed to create resilient landscapes and livelihoods for vulnerable rural populations in Ethiopia.

4. The Resilient Landscapes and Livelihoods Project (RLLP) will improve climate resilience, land productivity and carbon storage, as well as improve access to diversified sources of income in selected vulnerable rural major watersheds in the regions of Amhara, Benishangul Gumuz, Gambella, Oromiya, Southern Nations Nationalities and People, and Tigray. The project scales up initiatives with demonstrated climate value and co-benefits within the past World Bank (WB) administered Sustainable Land Management Programme (SLMP) I and II, and it pilots new innovations via RLLP. Proposed interventions target rural livelihood productivity and resilience through sustainable land management; resilient, low-emission agriculture practices; enhanced land tenure; gender-sensitive livelihood initiatives that contribute to removing barriers to women's ownership of and control over assets; and the strengthening of value chains for long-term programme durability. The executing entity is Ethiopia's Federal Ministry of Agriculture and Livestock Resource (MoA).

5. The RLLP will increase climate resilience in 210 major watersheds with 8 to 12 micro-watersheds per major watershed. The beneficiaries of RLLP include the entire population of the selected watersheds, estimated at 4.2 million people, or 834,000 households, conservatively estimated using census data circa 2007. Indirect beneficiaries are estimated at over 26 million people. The project interventions are also expected to lead to a greenhouse gas (GHG) emissions reduction of 43.8 million tonnes of carbon dioxide equivalent (tCO_2eq) due to carbon sequestration as a result of improvements to grasslands, afforestation and agriculture.

6. The RLLP will be implemented through four integrated components, which, taken together, will achieve the project's objective of creating resilient landscapes and livelihoods for vulnerable rural populations in Ethiopia. Component 1 forms the core of the project and includes the activities directly implementing sustainable land management and agricultural practices. It also includes co-financed activities addressing household energy services. These activities are essential to change the development pathway of rural Ethiopia to one in which

land use is climate resilient. Component 2 will create institutions and build capacity that will enable the interventions introduced in component 1 to be sustainably implemented even after watersheds graduate from project-based support. Component 3 deals specifically with the barrier of weak tenure rights. The provision of security of tenure to smallholder farmers is essential to motivate them to implement the new practices that will be promoted by RLLP. Without clear tenure and strong land use planning it is likely that interventions introduced by the proposed project will be abandoned once project support ends. Finally, project management activities are covered by component 4.

7. **Climate objective**. Over the past three decades, Ethiopia has experienced countless localized drought events and seven major droughts, five of which have been associated with famines. Climate varies significantly between and even in each one of the Ethiopian regions. Most of the recent drought and food crisis events have been geographically concentrated in two broad zones of the country, with the eastern and northern areas being the most vulnerable. For example, rainfall variability and associated droughts have been major causes of food shortages and famine in the Tigray region in the north of the country. There are numerous observed changes in Ethiopia's climate.[1] The most prominent observed climate change trend has been a tendency towards lower rainfall during the main growing seasons (March–May and December–February). A decline in rainfall of 15 per cent on average has been associated with anthropogenic Indian Ocean warming. While floods have historically never been a major economic hazard in Ethiopia, in recent years there has been significant socio-economic disruption due to flooding, for example in 1997 and 2006.

8. **Financing information, and environmental and social safeguards category.** The project is seeking USD 165.24 million in GCF financing for a total project cost of USD 296.24 million. The project lifespan is 25 years. USD 107.17 million in highly concessional loans is requested from GCF, with a grace period of 10 years and tenor of 40 years, as well as USD 58.06 million in non-reimbursable grants. The project budget includes USD 100 million in loans to be provided by the WB as an International Development Association (IDA) credit. In addition to USD 100 million in loans, USD 19 million in grants are provided as co-financing through an IDA-administered Multi-Donor Trust Fund (MDTF), with contributions from the Government of Norway, and USD 12 million in grants from the Government of Canada. In addition to co-financing, parallel financing (which is not included in the project financing) is provided from the Government of Ethiopia in-kind in the amount of USD 10 million and from Gesellschaft für Internationale Zusammenarbeit (GIZ) for the equivalent of USD 13 million in the form of technical assistance.

9. GCF funding will finance project activities in watersheds that face the highest risk from the impacts of climate change**.** Out of the 210 watersheds supported by the project, 40 have been identified for GCF funding based on their ranking of annual soil loss due to precipitation changes by 2050 as compared to current levels. WB loans and MDTF grants (and parallel financing) apply to the remaining 170 watersheds, including an additional 18 watersheds recently secured through MDTF financing from the Government of Canada. The Board of the WB has already approved its funding and started implementation of preparatory activities in April 2019.

10. The accredited entity (AE) has categorized RLLP as environmental category B, noting that significant adverse environmental and social impacts are not expected to occur due to the nature of the proposed project activities. The AE submitted an environmental and social management framework (ESMF), and a resettlement policy framework (RPF), and a social

[1] Climate Risk and Adaptation Country Profile: Vulnerability, Risk Reduction and Adaptation to Climate Change: Ethiopia. WB, 2011. Available at: <https://www.gfdrr.org/sites/default/files/publication/climate-change-country-profile-2011-ethiopia.pdf >.

assessment (SA). The ESMF and RPF are well developed and were already disclosed under the disclosure system of the AE.

2.2 Component-by-component analysis:

Component 1: Investment in green infrastructure and resilient livelihoods. (total cost: USD 222.5 million; GCF grant: USD 57.5 million; GCF concessional loan: USD 85.5 million, GCF covers 64 per cent of total cost)

11. This component will provide support for the restoration of degraded landscapes in selected watersheds and help build resilient livelihoods through the following programme of activities organized as three subcomponents:

(a) Subcomponent 1.1, land restoration and watershed management: implement sustainable soil and water conservation practices in line with multi-year development plans in watersheds, including land rehabilitation measures and establishment of green infrastructure (including rehabilitation through biological and physical conservation measures that ensure reduced surface run-off and soil erosion, as well as improved land productivity, resulting in enhanced crop and livestock production) through, inter alia, soil and water conservation measures; gully rehabilitation; establishment of green corridors; area closure management and use; establishment of plantation blocks; and enrichment of degraded pasture and rangeland;

(b) Subcomponent 1.2, climate-resilient agriculture: enhance livelihood resilience of beneficiary households in restored micro-watersheds by implementing context-specific climate-smart agriculture activity packages comprising one or more of the following: farm water and soil moisture management; integrated soil fertility and soil health management; crop development and management; and environmentally friendly livestock production through feed development and management; and

(c) Subcomponent 1.3, livelihood diversification and connection to value chains: further increase livelihood resilience by diversifying livelihoods, and helping ensure livelihood sustainability by better connecting products with value chains in selected watersheds through a programme of activities, including provision of technical assistance and grants to common interest groups and financing activities that facilitate private sector engagement in project-supported value chains directly or through primary cooperatives and/or cooperative unions.

Component 2: Investing in institutions and information for resilience (total cost: USD 29.7 million; GCF concessional loan: USD 16.2 million, or 55 per cent, applicable only to subcomponent 2.1; no GCF funding applies to subcomponent 2.2)

12. This component seeks to enhance institutional capacity and improve information for better decision-making in supporting resilient landscapes and diversified rural livelihoods in the project area through the following programme of activities organized as two subcomponents:

(a) Subcomponent 2.1, capacity-building, information modernization, and policy development: provide of technical assistance, at the local government level, to implement the project and build capacity to sustain land and water management practices in watersheds, including financing of selected staff positions, financing of technical vocational education and training, development of data management plan, piloting of new technologies for information modernization (such as the use of electronic tablets for gathering geospatial information and the use of unmanned aerial vehicles for land certification mapping), and development and application of a regulatory framework for the establishment of water use associations and community

bylaws guiding land-use practices, and strengthening the Land Administration System; and

(b) Subcomponent 2.2, impact evaluation, knowledge management and communication: carry out impact evaluations of (i) the bio-physical outcomes of the MoA SLMP, and (ii) the productivity gains associated with the climate-smart agriculture interventions supported by the project. Establish a geospatial knowledge platform accessible to planners and stakeholders, and develop and implement a strategic communication programme to inform and mobilize communities, and to enhance project visibility and transparency among all actors.

Component 3: Land administration and use (total cost: USD 26 million; no GCF funding applies to this component)

13. This component will strengthen land tenure and the land administration system in project areas and improve incentives for beneficiary communities to invest in sustainable landscape management through the following activities organized under one subcomponent:

(a) Subcomponent 3.1, second-level landholding certification: in the micro-watersheds targeted under part 1 of the project, improve the land tenure security of rural households and groups through land certification and administration (including issuance of second-level landholding certification) to households and targeted landless youth, who will receive communal land certificates, inputs, and extension services in exchange for land restoration). Moreover, participatory local land-use planning and development control: enhance local level land-use planning and support innovations in landscape certification systems (including providing support for participatory local land-use planning and the rollout of the National Rural Land Administration Information System.

Component 4: Project management and reporting (total cost: USD 18.1 million; GCF grant: USD 0.5 million; GCF concessional loan: USD 5.6 million; GCF covers 34 per cent of total cost)

14. This component will support project management and reporting, including financing of operating costs and implementation of project fiduciary aspects, including financial management, procurement, environmental and social safeguards, gender mainstreaming, monitoring and evaluation, and reporting.

III. Assessment of performance against investment criteria

3.1 Impact potential *Scale: High*

15. The RLLP is expected to have significant mitigation impact. The project will result in a net carbon sink of 43.8 million tCO_2eq emissions over a period of 25 years, resulting in 1.752 million tCO_2eq per year, or 0.9 million tCO_2eq per hectare per year over 25 years. Estimates have been prepared using the Ex-Ante Carbon-balance Tool. Most of the carbon sequestration comes from improvements to grassland and annual agriculture. This sequestration offsets emissions from the increased use of fertilizer, herbicide and diesel as well as from building construction, resulting in a net sink.

16. Similarly, the adaptation impact potential of the project is significant. The number of direct beneficiaries includes the entire population in the selected watersheds and is estimated to be 4.2 million people, or 834,000 households, with an average of 5 persons per household. Indirect beneficiaries are estimated at just over 26 million people in Ethiopia. This estimate is conservative as it is based on 2007 population census figures, whereas the population has been estimated to be 15 per cent higher. Full implementation of the proposed project will increase climate resilience in 210 major watersheds with 8 to 12 micro-watersheds per major

watershed. It is envisaged that the total population of the watersheds in which activities will be undertaken will benefit.

3.2 Paradigm shift potential *Scale: Medium-High*

17. RLLP presents an integrated package of activities that is the result of the extensive experience gained by the Government of Ethiopia and the WB in previous projects, and which is essential to achieving paradigm shift. While project activities are not innovative in the global context, the integrated bottom-up implementation strategy of RLLP, applied at scale and to the population of smallholder farmers already operating in highly degraded landscapes, is innovative and can achieve paradigm shift in the Ethiopian context.

18. In order to achieve paradigm shift, RLLP addresses key root causes of land degradation, which include: (i) poor cropland management practices; (ii) rapid depletion of vegetation cover; (iii) poor livestock management; and (iv) an insecure land tenure system. This approach grows out of the project's theory of change: by delivering more productive, secure and resilient livelihoods to local communities and by establishing the institutional framework needed to support maintenance of restored landscapes over the long term through watershed associations and local governments, RLLP will lead to a durable shift towards sustainable land management (SLM) in the degraded watersheds of the Ethiopian highlands. A piecemeal approach in which only some of the drivers of degradation are addressed might lead to temporary, local improvement but would not lead to a sustained, widespread shift towards resilience for poor Ethiopian farmers**.**

19. RLLP presents important opportunities for scaling up and replication. A crucial barrier to achieving the level of investment required to restore all degraded watersheds nationally is the need to demonstrate a strategy for the long-term maintenance of these restored, newly productive, resilient, low-emission landscapes. By building policy, institutional and market incentives for long-term SLM and by investing in robust impact evaluation, knowledge management and communication, RLLP will establish the conditions for national scaling-up of SLM for climate change adaptation and mitigation. In the shorter term, replication of the successes of RLLP interventions can also be expected in neighbouring watersheds, a process that has already been demonstrated to dramatic effect in the ongoing SLM programme as a result of informal dissemination of improved land and water management practices.

3.3 Sustainable development potential *Scale: High*

20. Environmental benefits of the project include improved water management including increased soil moisture and reduced variability in response to flood/drought conditions. Soil retention provides benefits both on-site in terms of soil quality and fertility (with impact on variability of yield) and off-site in terms of reduced erosion (with impact on downstream water quality and biodiversity).

21. Social and economic benefits of the project will be from improved incomes and more resilient livelihoods for vulnerable communities in degraded watersheds as a result of investment in SLM, climate resilient livelihood diversification, value chain strengthening and land certification. The project activities that are focused on improved cookstoves (not financed by GCF) will also have impacts through reduced indoor air pollution and fuelwood use. RLLP will also increase the food security of communities, and prevent a return to food insecurity due to climate shocks, resulting in social and economic benefits in treated watersheds. Project-funded capacity-building will also lead to increased skill levels in public sector institutions.

22. Gender-sensitive development impacts will result from the promotion of women's participation in community watershed associations, specific targeting of women in issuance of

land-holding certificates, and design of income-generating activities. RLLP builds on experience of gender-related benefits from past projects in Ethiopia, including SLMP II.

3.4 Needs of the recipient *Scale: High*

23. Ethiopia is a least developed country that is among the most vulnerable to climate change and variability: it is exposed to severe climate impacts, its economy is highly climate-sensitive, and its adaptive capacity is low. In the Notre Dame Global Adaptation Initiative country index, Ethiopia ranks 163 out of 181 countries in terms of climate readiness. While the poverty headcount has fallen from 55.5 per cent to 26.7 per cent between 2000 and 2016,[2] these gains are very fragile in a changing climate. Resilient agriculture is a high priority, as agriculture accounts for 41 per cent of gross domestic product, 85 per cent of all employment and 9 of the top 10 export commodities by value.[3] Ethiopia's Second National Communication identified the primary cause of vulnerability to climate variability and change as a high dependence on rain-fed agriculture. The project directly targets the vulnerable populations, particularly smallholder farmers whose lives and livelihoods are most at risk from climate change.

24. The proposed project has been requested by the government of Ethiopia to both scale up the success of the ongoing SLMP and to introduce new, transformative and innovative elements. Without GCF involvement, Ethiopia cannot finance the proposed interventions. The national Climate Resilient Green Economy (CRGE) strategy has called for annual spending of USD 7.5 billion to respond to climate change. With national budgetary resources for climate change-relevant actions estimated to be in the order of USD 440 million per year and international sources contributing tens of millions of dollars per year, there is a major financing gap. Poor access to credit, high lending rates and an insufficient budget are not conducive to the investments required for handling local climate change impacts. In addition, Ethiopia's Debt Sustainability Assessment recently changed the risk of debt distress to high. Thus, GCF concessional financing, including a high degree of concessionality, is needed to ensure improved resilience to climate change impacts and food security in Ethiopia.

25. Ethiopia's long-term goal is to ensure that climate change adaptation and mitigation are fully mainstreamed into development activities. The proposed project is designed to be transformative, contributing to a number of key national strategies, including the Growth and Transformation Plan II, the Climate Resilient Green Economy strategy, and accompanying 2015 Climate Resilience Strategy for Agriculture and Forest, Ethiopia's nationally determined contribution (NDC), the 2017 national adaptation plan (NAP) to address climate change, the Ethiopia SLM investment framework, the emerging National Forest Sector Strategy and national REDD-plus strategy, as well as sector strategies for energy, water and agriculture. The proposed project is also in line with the intention of Ethiopia to limit its net GHG emissions in 2030 to 145 tCO_2eq or lower. The Government of Ethiopia requires financial support in order to deliver on these targets.

3.5 Country ownership *Scale: High*

26. Ethiopia has not yet submitted a country programme to GCF. The country has received a readiness grant to support the definition of key components of a country programme between 2019 and 2021. Two of these components, the identification of key investment priorities and the development of project concept notes to be submitted to GCF, are expected to be concluded in 2020.

[2] WB database, for poverty headcount ratio at USD 1.90 a day (2011 Purchasing Power Parity).
[3] Climate-Resilient Green Economy, 2014.

27. Despite the absence of a country programme for GCF, Ethiopia is one of the African countries where climate change has been more strongly mainstreamed in economic development high-level strategies and plans. Ethiopia's development is guided by the Growth and Transformation Plan II (2016–2020) as well as by the CRGE strategy, which targets the achievement of green or low-emissions economic growth that is resilient in the context of the adverse effects of climate change. The Growth and Transformation Plan II has mainstreamed CRGE – which integrates well economic and climate change goals – to implement its four pillars: modernization of agriculture, industrialization, transformation and foreign trade development.

28. In addition, the priority sectors identified for climate investment by Ethiopia across its key climate change documents (NDC 2015, NAP 2019, technical needs assessment 2007, and CRGE 2011) are very consistent: the focus is on agriculture, forestry, energy, transport, industries and green cities (including buildings and waste), with health and water coming as additional priorities presented in the more recently published NAP. These are also consistent with the county's main GHG emissions sectors (agriculture, energy and land-use change and forestry). Agriculture and forestry are the main sectors that the country expects to develop to limit its net GHG emissions in 2030 to 145 tCO_2eq or lower (NDC).

29. Finally, the national designated authority of Ethiopia has informed GCF, through its planned readiness activities, of four prioritized intervention areas: (i) acceleration of non-grid energy access; (ii) acceleration of irrigation activities; (iii) strengthening climate resilience of rain-fed agriculture; and (iv) strengthening climate-resilient Water, Sanitation and Hygiene for All systems, including reliable sources of water; use of modern, cost-effective techniques; modern technologies for reuse and capture of water; water provision for human and livestock consumption; and rural water utilities.

30. As such, this project targets a number of interventions that are described in Ethiopia's NDC as their main effort towards long-term adaptation goals, which is to increase resilience and reduce vulnerability of livelihoods and landscapes based on three pillars (drought, floods and cross-cutting interventions, which include areas such as insurance systems and reducing fire and pest epidemics). RLLP addresses agricultural productivity, improved crop varieties, water harvesting techniques, agroforestry and other interventions strongly aligned with the high-level targets described in the NDC under these three pillars. RLLP also builds on prior experiences/programmes such as the SLMP, a programme initiated to address two of Ethiopia's most significant developmental and environmental problems: agricultural productivity and land degradation.

3.6 Efficiency and effectiveness *Scale: Medium-High*

31. The economic net present value is USD 3.3 billion discounted at 5 per cent over a 25-year return period. The economic cost-benefit ratio is therefore 3.8 with an economic internal rate of return (EIRR) of 47 per cent with a payback of 5.3 years. The project is therefore highly cost effective from an economic return perspective.

32. The appropriateness of GCF concessionality rests on the need to address market failures and provide public goods. The provision of public goods is clear in the institutional and information activities of component 2. The land restoration and watershed management activities under subcomponent 1.1 are meant to correct market failures related to the management of common pool resources, for which GCF concessionality is appropriate. The use of grant funding could be questioned for the climate-smart agriculture investments in activity 1.2, which are considered too risky to be funded by loans. This suggests a market failure of information asymmetry that leads to an incorrect pricing of risk in these investments. Indeed, the funding proposal states that existing commercial loans of sufficient size are unavailable to make these investments. When higher returns of these investments are demonstrated, it will support sustainability of the project and its outcomes.

33. In terms of the concessionality of the GCF loan, the proposed interest rate and tenor of the GCF loan roughly match the terms of the accompanying IDA loan, although it is slightly more concessional due to the longer grace period. Ethiopia's debt situation and the long payback period of the investments justifies high concessionality.

34. The project is highly cost effective, as evidenced by a base case EIRR of 47 per cent. While this estimate includes mitigation benefits based on the social cost of carbon, the project would remain economically viable with an EIRR of 30 per cent even if carbon benefits are omitted. This points to strong adaptation benefits and economic co-benefits generated through other benefit streams, such as reduced soil erosion, increased crop yields and improved livestock productivity.

IV. Assessment of consistency with GCF safeguards and policies

4.1 Environmental and social safeguards

35. **Environmental and social risk category**. The World Bank categorized the Resilient Landscapes and Livelihoods Project (RLLP) as Environmental Category B, noting that significant adverse environmental and social impacts are not expected to occur due to the nature of the proposed project activities. The potential adverse environmental impacts on humans and sensitive areas (e.g. wetlands, forests, natural habitats, grasslands, etc.) are less adverse, low probability, site specific, and few, if any, would be irreversible. The Secretariat confirms the classification, given the small-scale physical interventions involved, the community-based, participatory approach to be employed, and the fact that the interventions themselves are designed to reverse land degradation and generate sustainable socioeconomic benefits, which have been demonstrated in Sustainable Land Management Project II (SLMP II). The overall environmental and social risks are thus low to medium and impacts would be mostly localized and easily managed. Cumulative adverse impacts on biodiversity and ecological change-induced imbalances would be of very low probability.

36. **Safeguards instruments and disclosure**. An environmental and social management framework (ESMF), a social assessment (SA), and a resettlement policy framework (RPF) have been submitted. The ESMF and RPF are already well developed and were disclosed under the disclosure system of the AE. The SA was prepared to assess the presence of indigenous peoples in some of the project sites.

37. The following summarizes the assessment of the project's consistency to GCF environmental and social safeguards (ESS) standards and requirements.

38. **ESS 1: Assessment and management of environmental and social risks and impacts**. The AE has submitted an ESMF, a SA and an RPF. The ESMF provides a clear process of screening, assessment review and approval of subprojects in terms of environmental and social safeguards as well as the provision of management measures. Although the potential risks and/or impacts of the project are generally either of low magnitude or low probability of occurrence, these could also include: (i) possible failure to consider the rights of indigenous people contributing to their further cultural and economic marginalization; (ii) emergence or outbreak of diseases due to ecological change; (iii) possible impact on biodiversity due to inadvertent introduction of invasive species and/or modification of local hydrology; (iv) possible triggering of conflicts over land boundaries between individual/group claimants; (v) short-term and long-term impacts of increased use of pesticides and agrochemicals; and (vi) construction-related risk on labour management, safety and social concerns.

39. **ESS 2: Labour and Working Conditions**. The project will include village level, small-scale infrastructure construction activities that would involve the hiring of labour by

contractors, who would undertake the work. Thus, construction-related risk on labour management, safety and social concerns may occur. The issues related to construction activities include compliance of contractors with labour and working conditions standards, including occupational health and safety, child labour, and community health and safety, issues such as traffic and construction site safety for residents, potential for spread of sexually transmitted diseases, including human immunodeficiency virus and acquired immune deficiency syndrome, and community relations. The Secretariat recommends that these issues be considered and measures to address them be established in the course of project implementation. The project should require contractors to comply with international labour management and working condition standards, addressing among others, the following: (i) provision of labour grievance mechanism; (ii) ensuring basic worker rights; (iii) non-discrimination of workers; (iv) prohibition/restrictions on hiring of minors in compliance with International Labour Organization standards; and, (v) provisions for occupational health and safety. The contractors should also be required to adopt measures to ensure the workers respect local culture and sensitivities and protect community health and safety, specifically measures to avoid traffic and construction site accidents and prevent the spread of diseases.

40. **ESS 3: Resource efficiency and pollution prevention**. The project interventions are designed and are expected to conserve soil and water resources. The project interventions are also expected to lead to greenhouse gas emissions reduction due to carbon sequestration as a result of improvements to grasslands, forests and agriculture. Concerns for environmental pollution would be minor for this project and would come mainly from small-scale construction activities which can be managed by good housekeeping and proper waste disposal. These should be addressed in the individual environmental and social management plans of the activities in accordance with the ESMF. The risk of environmental contamination with pesticides from the introduction of new production methods is being addressed through the screening and application of the World Bank Policy on Pest Management, which promotes the use of Integrated Pest Management (IPM) techniques. In terms of potential for increase in the use of pesticides and agrochemicals, the policy will be triggered by the RLLP activities, even though RLLP funds will not be used to manufacture, or directly purchase or distribute agrochemicals. However, in the course of activities related to agriculture and water harvesting structures, the introduction of high value crops and use of pesticides, introduction of new varieties of crops, new fruit tree species and varieties, and high yielding varieties, may demand the use of agrochemicals and inorganic fertilizers (insecticides, herbicides, fertilizers, etc.). The project promotes the use of IPM where it refers to a mix of farmer-driven, ecologically based pest control practices that seek to reduce reliance on synthetic chemical pesticides. It involves (i) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them; (ii) relying, to the extent possible, on nonchemical measures to keep pest populations low; and (iii) selecting and applying pesticides, when they have to be used, in a way that minimizes adverse effects on beneficial organisms, humans, and the environment.

41. **ESS 4: Community health, safety and security**. The project poses a risk to community health due to possible outbreaks of endemic diseases, or reemergence of latent diseases, as the project intervention successfully modifies the landscape and ecology of the area. This includes possible breeding of disease vectors in water impoundment structures and canals. The risk related to pesticide use and handling is also being addressed as part of the subproject guidelines on IPM through training in pest and fertilizer applications, and safe chemical handling, among others. The project will support construction and management of small dams of less than 4.5 metres and will use FAO Manual on Small Earth Dams: A guide to siting, design and construction. It will also use the Ministry of Agriculture Guidelines for Dams and Reservoirs to ensure safety of small dams.

42. **ESS 5: Land acquisition and involuntary resettlement**. The AE has submitted a RPF to address involuntary land acquisition and resettlement impacts. The ESMF and the RPF indicated that resettlement impacts for the project would be rare since ground activities will be

implemented in a community-based participatory manner and lands to be used for facilities are mostly communal lands or obtained through voluntary donation. Still, there is a possibility of undue pressure on individuals, from community leaders or peers, to donate land for the community facilities. Adequate safeguards, including a questionnaire checklist, have been included in the RPF to ensure land donations are voluntary. There is also a possibility of restriction of access for some groups of people due to community-imposed changes in land use, which will be addressed through a consultation process with the affected group to find alternative arrangements. The project may also cause potential individual conflicts over land boundaries: under component 3, the distribution of land holding certificates could trigger disputes over boundaries. The SA noted the existence of customary conflict mediation institutions throughout the country that have traditionally played an important role in the settlement of disputes involving rural lands. These institutions have been successfully tapped in SLMP in resolving land-related disputes and other disagreements arising from project implementation. These institutions have been made part of the grievance redress mechanism under SLMP II and will continue to be used under RLLP.

43. **ESS 6: Biodiversity conservation and sustainable management of living natural resources**. Although the project is expected to help reverse the degradation of biodiversity resources in the watershed areas, there may be potential adverse impacts from inadvertent introduction of exotic tree species in the reforestation activities, or from the intensification of agricultural production, and environmental contamination from agrochemicals. There are also largely unknown impacts on certain species due to change in moisture availability. There may also be a need to continuously monitor changes in the biological profile of the project area throughout the project lifespan. Further, ecological change-induced outbreak of diseases may occur. Ecological change could trigger an outbreak of endemic disease or reemergence of latent diseases, particularly vector-borne diseases within the target watersheds. This could happen as the project successfully alters or "improves" the landscape and ecology of the area. Alterations to the natural environment may change the context within which vectors and hosts interact, thus potentially affecting vector-borne disease epidemiology. The management measures include items in the screening checklist related to potential vector-borne diseases, acknowledging that disease outbreaks are potential impacts of water harvesting structures as they could provide habitat to water- and vector-borne diseases, such as schistosomiasis and malaria. The ESMF recommends to "assess the ecology of disease carriers in the project area, and employ suitable prevention and mitigation measures, such as proper siting and orientation of water works, fields and furrows to ensure adequate natural drainage of surface water; use of lined canals and pipes to discourage vectors; avoidance of unsuitable gradients and creating stagnant or slowly moving water" and to "monitor disease and public health indicators, during and after construction, and take corrective measures (e.g. education, medical) as needed".

44. Although the various watershed interventions are largely expected to improve or reverse biodiversity loss, the opposite could also occur. The interventions themselves could result in adverse impacts on ecologically important or endangered species due to the inadvertent introduction of invasive species to the watershed or due to change in the ecology of the area. Altering the moisture regime of the watershed area through water impoundment, rechanneling, check-dams, vegetation, and other interventions could have different impacts on individual species. For the changes in the agroecological profile of the watershed to be significant over the years, there will be unpredictable changes in the ecosystem of the area that may have differentiated impacts on some species. The management measures to be employed by the project include screening out any subprojects that would: (a) "involve removal or conversion of substantial amounts of forests and other natural resources"; (b) "cause degradation of critical natural habitats"; and/or, (c) "cause loss of biodiversity"; and, in terms of siting and design: (d) avoid sensitive natural habitat areas (i.e. forest, wetlands, riparian areas) by re-siting, rerouting or modification of design; and, where necessary, ensure (e) minimization of cutting of trees; (f) preparation of wildlife management plan; and (g) careful selection and use

of non-invasive exotic and indigenous species. These measures are deemed sufficient for small scale non-spatially contiguous interventions.

45. **ESS 7: Indigenous peoples**. The SA that serves as the indigenous peoples (IP) plan for SLMP II, was updated. The updated SA describes the approach undertaken by the project in IP areas under SLMP II. The project will apply the same approach and measures as with SLMP II on indigenous peoples' issues. All the safeguard instruments noted the presence of various ethnic minorities in the project areas with indigenous peoples' issues particularly relevant in the Developing Regional States (DRS) of Gambela and Beninhangul-Gumz. The AE recognized the issue and has triggered its Indigenous Peoples Policy. The project interventions in respect of the communities are initiated, planned, designed, implemented and operated by members of the community themselves. The updated version contains a description of the methods and approaches of the project in IP areas. It also includes an evaluation of the approach undertaken in the DRS and noted the successful implementation of subprojects tailored for the community needs. The effective and successful implementation experiences in achieving the SLMP-II objectives will be replicated mainly on providing due consideration to the special characteristics of these population groups in its design, planning and implementation phases. Moreover, as part of the SA's update, consultations were conducted in new districts (Woredas) of the DRS to be covered under the project. The consultations clearly indicate strong support of the communities to the project. The people are aware of the developments experienced in their neighbouring Woredas that were covered by SLMP I and II. The Secretariat finds the strategies and approaches being undertaken sufficient. However, these strategies and approaches are currently presented as an evaluation study with recommendations. These need to be extracted from the SA, organized and presented as an indigenous peoples framework, which the project shall adopt to guide subproject development teams in the communities.

46. **ESS 8: Cultural heritage**. The project's potential impacts to cultural heritage, including relocation of graves, are being addressed in the ESMF. The project will not fund subprojects that would cause damage to physical and cultural resources.

47. **Institutional arrangements and capacity-building**. The ESMF indicated that the implementation of the project's activities and the environmental and social safeguards will be implemented through the existing government institutional structures, from the federal to the local or community level. Overall coordination and implementation of the project will be facilitated by the MoA in collaboration with other relevant ministries while at the regional level, the implementation will be led by the Bureau of Agriculture and Natural Resources. An Environmental as well as a Social Safeguards Specialist will be engaged at the National Project Coordination Unit as well as at the Regional Project Coordination Unit. Trainings on environmental and social safeguards aspects of subproject preparation, review and approval will also be conducted.

48. **Stakeholder engagement**. The project will be implemented largely through a community-based participatory approach. Hence, engagement of communities with the project is assured. Stakeholder consultations have been conducted and the project provides for the conduct of consultation, participation and engagement of all stakeholders, including local communities.

49. **Grievance redress mechanism**. A grievance redress mechanism is described in the ESMF and RPF. The AE has an established grievance redress mechanism and the project provided guidelines for a community-level grievance redress mechanism where complaints and concerns can be resolved. The GCF Indigenous Peoples Policy also states that the GCF Independent Redress Mechanism and the GCF Secretariat's indigenous peoples focal point will be available for assistance at any stage, including before a claim has been made.

4.2 Gender policy

50. The AE has provided a gender assessment and gender action plan and therefore complies with the requirements of the GCF Gender Policy.

51. The gender analysis describes the enabling environment that supports the work on gender equality and women's empowerment. Ethiopia has ratified international and regional instruments such as the Convention on the Elimination of all Forms of Discrimination Against Women and adopted several institutional and policy measures. Ethiopia's Constitution, various policies and legislation provide the space for women and men to enjoy the same rights to property and land use. Regional laws are being amended to improve women's benefits from land resources and land lease rights. Various ministries work towards enhancing women's access to climate sensitive technologies and enhancing women's access to alternative sources of energy (e.g. through access to improved cookstoves and biogas). MoA, through its gender strategy, aims to remove barriers to women's ownership and control of assets and improve women's voices and agency as well as increase economic empowerment for women. It also aspires to strengthen accountability in institutions and systems while developing capacity to deliver gender-sensitive services.

52. The assessment provides detailed information on the gender situation at the national level and in the six regions where the project is to be implemented. National data on gender indicates that, despite policy commitments, there are gaps and challenges to women's empowerment and gender equality in the country, as well as challenges with implementation, although there is gradual progress in some aspects. The gender inequality situation on the ground demonstrates stark gender equality gaps as a result of persistent existence of harmful traditional practices and perceptions that continue to constrain women's access to livelihood options, information and resources. Such constraints negatively affect women's capacity to adapt to climate change.

53. In all six regions women are mostly responsible for reproductive roles such as taking care of children, the elderly and sick, and household chores, while men have a very limited role. Findings of focus group discussions with women revealed their triple work burden because of their domestic, productive and community management roles and lack of sufficient time to engage in activities outside the home, thus limiting their capacity to generate income. However, further focus group discussions also revealed that women and girls saved several hours per week from time spent collecting firewood to successful adoption of clean cookstoves in their homes, and the adoption of the cookstoves alleviated some of routine housework burdens. Perceptions and customs limit women from engaging in plowing, while they are equally engaged in almost all farming activities on home gardens. For female heads of households the perceptions around the task of plowing mean that they have to make arrangements with male farmers to work their land in return for splitting the produce. In addition, men have lower expectations regarding women's capacities thus limiting women's engagement in marketing activities to produce what they grow themselves, such as small ruminants and vegetables. Roles with greater responsibilities would equip women with improved capacity, decision-making skills and bargaining power. Married women and female heads of households have time constraints, while young women indicated that they have the time and a high degree of interest to engage in different activities, including on SLM projects. The review of the SLMP indicates that wives spend more time than their husbands in project-related work though they have lower levels of project participation and benefit from trainings on coffee planting, spices planting, improved vegetable and potato production, and natural resource management bylaws, among others. The assessment reveals that women in decision-making in SLMP-II coordination platforms accounted for only 18.34 per cent in 2016, indicating a large gap in achieving the 30 per cent quota for female representation in decision-making roles.

54. The AE, as per the requirement of GCF's Gender Policy, has submitted a gender action plan that has taken into account the challenges faced by women and the lessons learned from the previous phase of the project. The gender action plan includes a set of activities that address

these challenges and takes into account their practical and strategic needs while at the same time enhancing and making visible their existing contributions. It includes a set of activities with set baselines, targets, indicators, budgets and timelines. The project will have a gender expert to support the implementation of the gender action plan and to provide support to gender focal points. The activities included are related to: awareness training on the division of labour, roles, benefits and participation; increasing the membership of women in different committees, such as Community Water Shade; identifying model women and men (couples and families) where gender relations and decision-making are more egalitarian; introducing technologies that reduce time and labour for women farmers and female-headed households; identifying and promoting commodities/products that have the potential for market development; strengthening the capacity of implementing institutions; creating awareness about the importance of equal land rights and tenure. The project will also work on ensuring that women have access to a grievance redress mechanism including for gender-based violence and by allocating resources for awareness creation and ensuring the capacity of the Woreda Women and Children Affairs Offices to address the issues.

4.3 Risks

4.3.1. Overall programme assessment (medium risk)

55. The funding proposal is for a debt financing of USD 107 million and a grant of USD 58 million to improve climate resilience, land productivity and carbon storage and to increase access to diversified livelihood activities in selected rural watersheds of Ethiopia. The AE is providing a debt financing of USD 100 million. The Governments of Norway and Canada are expected to provide co-financing of USD 19 million and USD 12 million by way of grant, respectively. GCF and the AE are both assuming the sovereign credit risk for the debt financing, however, the repayment schedule will be finalized at term sheet and funded activity agreement (FAA) stage.

56. The project aims to scale up and improve the previous initiatives (e.g. SLMP) by the AE. A vulnerability analysis was undertaken for 210 major watersheds and GCF resources will finance 40 of these that were ranked the most vulnerable. IDA and the anticipated financing from Canada will finance the remaining 152 and 18 watersheds respectively. The GCF grant is supporting activities that will have direct climate benefits (subcomponent 1.1 and component 4) such as carbon sequestration.

4.3.2. Accredited entity/executing entity capability to execute the current programme (medium risk)

57. World Bank is the AE for this project. The project builds on experience gained by the AE working with the Government of Ethiopia in previous and ongoing projects such as SLMP-I and SLMP-II. Based on the review of the SLMP experience, this project will expand and strengthen relevant interventions.

58. Ethiopia, represented by the Ministry of Finance and acting through the Ministry of Agriculture (MoA), will be an EE for this project. MoA has been implementing the SLMP with the AE by coordinating investments from multiple donors and partners (e.g. IDA, Norway, Canada, Germany, Global Environment Facility, Least Developed Countries Fund). A procurement capacity and risk assessment of MoA has been undertaken and the report shows that the capacity of the EE is still limited even though improvement has been shown in SLMP-II. The AE will ensure that the EE has the necessary procurement capacity required for the project.

4.3.3. Programme-specific execution risks (medium risk)

59. Coordination with ongoing activities: the AE financing (IDA) became effective in April 2019. Some activities will be under implementation before GCF disbursement. The AE is relied upon to coordinate the activities that start in different times and locations and ensure that the past activities have been implemented in accordance with GCF policies.

60. Shortfall in grant co-financing: the amount of grant co-financing is an estimate as it will be contributed in currencies of donors. The contributions will be made in tranches and each tranche is still subject to the respective government's approval process. It is not a pre-condition for GCF disbursement. Therefore, the project may experience some shortfall in the co-financing and GCF disbursement may take place without confirmation of other grant co-financing.

61. Land tenure: the land tenure is crucial for the investment for sustainable land use management, but there is a potential risk for land boundary conflicts in the issuance of individual land holding certificates, which is part of the activities under component 3. The security of land tenure will be critical to motivate smallholder farmers to participate in the project and continue the project interventions. The AE has responded that the social assessment was reviewed, and the AE will apply its own safeguard policies and procedures.

62. Risk-taking capacity of community storage receipts programmes (CSRP) management: the project will support the development of CSRPs, managed by organized common interest groups /watershed associations or cooperatives which have legal personality to sign contracts, are able to access credits from microfinance institutions and have management capacity. The programmes are expected to provide liquidity to poor farmers and reduce the damage to agriculture produce. However, if the price of agricultural produce deceases more than expected, the CSRP will need to carry the risks of price fluctuation. The groups that will manage CSRP would set prices that accommodate such risks when designing their regulations and strategy. Therefore, the management capacity of CSRP is imperative for the successful implementation of the programme.

63. Credit risk: GCF provides a sovereign loan to the Government of Ethiopia (Moody's rating B1). Ethiopia's Debt Sustainability Assessment recently changed the risk of debt distress to high. The external debt-service capacity is likely to be weakened due to depreciation of the local currency. However, this risk is partially mitigated by the high concessional loan with long-term maturity being provided by GCF.

64. Political and governance risk: the AE identified the political and governance risk due to the sporadic civil unrest in project areas despite the end of a state of emergency in June 2018. While the AE acknowledged that the mitigation measure of this risk is limited, it will adopt an approach that will include careful supervision planning that emphasizes security, strategic communication and sound safeguards monitoring.

65. GCF proceeds to pay taxes: the funding proposal states that goods and services procured by the project will be subject to income tax, withholding tax and value added tax. It is also mentioned that GCF proceeds can be used to pay taxes. As GCF is providing concessional financing, it is recommended that the Government of Ethiopia does not levy these taxes on goods and services procured through GCF resources.

4.3.4. GCF portfolio concentration risk (low risk)

66. In case of approval, the impact of this proposal on GCF portfolio risk remains non-material and within the risk appetite in terms of concentration level, results area or single proposal.

4.3.5. Compliance risk assessment (medium risk)

67. Under the project proposal, there is a component to provide direct cash payments to beneficiaries for measures undertaken to implement reforms in farming practices. Because

cash payments to beneficiaries generally pose an inherent high risk for money laundering, terrorist financing, or prohibited practices, a robust due diligence and internal control process becomes necessary to ensure that those receiving payments are entitled to same, that opportunities for fraud are reduced, and that instances of using such funds for money laundering, terrorist financing, or other prohibited practices are effectively mitigated. In this regard, the AE will be required to submit a written description of the payment program, along with the system and processes to be undertaken to assure compliance and mitigation as a condition to FAA effectiveness. Otherwise, a review of the remaining proposed activities under the funding proposal does not suggest an unusually high risk. Nevertheless, the capacity of implementers may vary in terms of integrity controls. The AE has indicated it has policies and procedures in place that will effectively monitor and mitigate any risks. Based on the information provided and the element that the due diligence and internal controls for any payments to beneficiaries will need to be submitted for approval prior to implementation, compliance risk can be assessed as having been reduced to a medium level.

4.3.6. Conclusion

68. It is recommended that Board considers the above factors in its decision.

4.3.7. Summary risk assessment and recommendation

Summary risk assessment		Rationale
Overall programme	Medium	The project could benefit from the lessons learned, coordination and capacity-building efforts made over many years of projects executed by the accredited entity and executing entity. As the project interventions will be implemented in different locations and at varying times, coordination with existing activities is critical for the efficient use of GCF proceeds. The accredited entity/executing entity are relied upon to closely monitor the status of co-financing and the security situation in the country
Accredited entity/executing entity capability	Medium	
Project specific execution	Medium	
GCF portfolio concentration	Low	
Compliance	Medium	

4.4 Fiduciary

69. The WB as the AE of the project will be responsible for project supervision and implementation. The AE will ensure that RLLP is executed in line with its policies and procedures. The EE for this project is Ethiopia's MoA. The Project Coordination Unit at MoA will manage and facilitate the day-to-day implementation of the project.

70. Financial assessment of the EE had been done by the AE. Inherent and control risks of the project have been assessed as substantial. As a consequence, the overall financial management risk rating of the project is considered substantial. The main risks in financial management arrangements will be shortage of qualified accountants and auditors (mainly at the Woreda-level). The limited focus of internal auditors of implementing entities will continue to be a challenge to the project. Limited or absence of experience of new entities in implementing WB-financed projects could also be another challenge to the project. The financial management action plan has been listed in annex D.5, section 8.

71. The AE has conducted a procurement capacity and risk assessment of MoA. Some improvements are needed in the area of procurement, such as a lack of timelines and timely approval. A risk mitigation matrix has been listed in annex L.1, section 21.

72. The AE will be responsible for ensuring that procurement under the project will be carried out in accordance with WB procurement regulations. The project procurement plan includes community-level procurement activities and targets, with a separate operational guideline. Training will be provided for the community-level procurement committee to improve capacity and reduce risks. There are also internal and external audits on a yearly basis and a comprehensive independent procurement audit will be conducted for the entire project period.

73. An external audit of the project will be conducted annually by the Supreme Audit Institution or an accredited private audit firm. The AE is responsible for reviewing and providing clearance for the recruitment of the auditor, including clearance of the terms of reference. The AE will verify that the audit will follow the International Standards on Auditing and that appropriate actions based on the findings are undertaken. If necessary, the AE will issue corrective actions throughout the execution of RLLP.

4.5 Results monitoring and reporting

74. The theory of change (TOC) provided clearly articulates the root causes driving the high vulnerabilities to climate change. The four RLLP components are linked to the eventual short-, medium- and long-term outcomes and the risks/assumptions are linked to the outcomes. However, the "if, then, because" logic does not clearly show in the diagram as provided in the most recent submission of the funding proposal. In the TOC diagram the causality between the outcomes and overall impacts is not fully established. As an example, a key assumption is that if more productive, secure and resilient livelihoods are delivered to local communities and the appropriate institutional framework that is needed to support maintenance of restored landscapes over the long term through watershed associations and local governments is established, then: (in the long term) there will be the adoption of sustainable natural resource management and improvements in livelihoods**.** However, the project proponent does not clearly articulate the "because". Essentially, the linkages between these elements is not clear and there are no links between the medium-term outcomes and the long-term changes in the TOC diagram.

75. Furthermore, the critical element of behavioural change is not mentioned at all in the TOC. This assumption should be articulated as an important element in driving the changes, especially as the expected long-term result is that there will be adoption of sustainable natural resource management practices. Additionally, the activities that would enable and support this set of long-term changes are not clearly defined in the TOC, notably capacity-building, which is listed only as a part of one of the items in component 2.

76. Finally, in terms of institutional strengthening, the critical assumption for this particular element does not take into consideration the challenges that are inherent in changing the legal framework which would enable the issuance of land certificates and improve the quality of service delivery in land administration.

77. We take note that there does seem to be a rather robust impact evaluation component which could mitigate the issues noted above.

4.5.1. Logical framework

78. At the core indicator level, the logical framework has been designed with relevant details, including reporting on the appropriate indicators for mitigation and adaptation, as well

as on the respective impact, outcome and output indicators for the targeted results area as per the GCF results management framework and performance measurement framework.

79. It should be noted that a specific firm has not been selected for third-party verification. The project proponent intends to issue a competitive request for proposals to select a suitable firm, which would be responsible for verifying the figures used. This procedure would need to be monitored during the implementation phase of the project.

80. As noted above, the capacity-building element is not clearly defined in the TOC and as a result this crucial element is described with insufficient detail in the logical framework.

4.5.2. Implementation timetable

81. The implementation timetable for the funding proposal has been completed appropriately. It shows all activities and key milestones associated with each phase of the project and these are consistent with the logical framework.

4.5.3. Monitoring, reporting and evaluation arrangements

82. The arrangements for monitoring, evaluation, and reporting (section E.7 of the funding proposal) are adequate.

4.6 Legal assessment

83. The accreditation master agreement ("AMA") was signed with the AE on 13 November 2017, and it became effective on 21 February 2019.

84. The AE has not provided a legal opinion/certificate confirming that it has obtained all internal approvals and has the capacity and authority to implement the proposed project. It is recommended that, prior to submission of the funding proposal to the Board (a) the AE has obtained all its internal approvals and (b) GCF has received a certificate or legal opinion from the AE in form and substance satisfactory to GCF confirming that all final internal approvals by the AE have been obtained and that the entity has the authority and capacity to implement the project.

85. The proposed project will be implemented in Ethiopia, a country in which GCF is not provided with privileges and immunities. This means that, among other matters, GCF is not protected against litigation or expropriation in this country, the risks of which need to be further assessed. The Secretariat sent a draft agreement together with a background note on privileges and immunities to the national designated authority on November 2015, and meetings were held with the Ethiopian delegation during the twenty-first Conference of the Parties to the United Nations Framework Convention on Climate Change in December 2015 and during the GCF Readiness Week in April 2016. However, no response on the draft have been received thus far.

86. The Heads of the Independent Redress Mechanism and Independent Integrity Unit have both expressed that it would not be legally feasible to undertake their redress activities and/or investigations, as appropriate, in countries where GCF is not provided with relevant privileges and immunities. Therefore, it is recommended that disbursements by GCF are made only after GCF has obtained satisfactory protection against litigation and expropriation in the country, or has been provided with appropriate privileges and immunities.

87. In order to mitigate risk, it is recommended that any approval by the Board is made subject to the following conditions:

(a) Delivery by the AE to GCF of a certificate or legal opinion confirming that it has obtained all its internal approvals within 120 days of the Board approval;

(b) Signature of the funded activity agreement in a form and substance satisfactory to the Secretariat within 180 days from the date of Board approval, or the date in which the AE has provided a certificate or legal opinion confirming that it has obtained all internal approvals, whichever is later; and

(c) Completion of legal due diligence to the satisfaction of the Secretariat.

4.7 List of proposed conditions (including legal)

88. List of conditions proposed:

(a) Delivery by the AE to GCF of a certificate or legal opinion confirming that it has obtained all its internal approvals within 120 days of the Board approval;

(b) Signature of the funded activity agreement in a form and substance satisfactory to the Secretariat within 180 days from the date of Board approval, or the date in which the AE has provided a certificate or legal opinion confirming that it has obtained all internal approvals, whichever is later; and

(c) Completion of legal due diligence to the satisfaction of the Secretariat.

Independent Technical Advisory Panel's assessment of FP136

Proposal name:	Resilient Landscapes and Livelihoods Project
Accredited entity:	World Bank
Country:	Ethiopia
Project/programme size:	Large

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential *Scale: High*

1.1.1. Adaptation impact

1. The Resilient Landscapes and Livelihoods Project (RLLP) in Ethiopia aims at improving agricultural resilience and productivity through the implementation of sustainable land and water management (SLWM), climate-smart agriculture (CSA), enhanced land tenure, livelihood initiatives, and the strengthening of value chains for long-term sustainability. The project targets 210 major watersheds with 8 to 12 micro-watersheds each. GCF funding would be allocated to support interventions in 40 major watersheds.

2. The SLWM interventions to be implemented on communal and private land include terraces, water harvesting trenches, check dams, small reservoirs and other civil works; soil fertility and moisture management; assisted natural regeneration, reforestation and afforestation; livestock land-use rationalization; gully rehabilitation; enrichment of degraded pastures and rangeland; and establishing green corridors linking fragmented forests. [1]

3. Potential CSA interventions include intercropping, low tillage, agroforestry and sylvo-pastoral management strategies; planting disease- and drought-resistant crops; and production of compost and other organic fertilizers.

4. The livelihoods development component aims to support the development of women-managed local enterprises by providing training and technical assistance to form common interest groups and help them to plan and implement income-generating activities, and invest in processing equipment and community storage facilities; and to promote access to markets and private sector engagement. It would specifically include funding to support the production and marketing of energy-efficient cookstoves.

5. The rural land administration and use component addresses the need to encourage farmers to develop long-term land-use plans instead of the current short-term planning which is the result of lack of security regarding land tenure and which causes frequent land redistributions. Short-term planning of agricultural activities tends to result in negative environmental impacts in the mid and long term. Activities to be supported include digital base map preparation; adjudication of second-level landholding certification and demarcation of parcel boundaries on the field map; and public display for validating parcels and landholders' information.

[1] Funding proposal, page 22.

6. The funding proposal states that the project directly benefits the entire population of the selected watersheds, estimated at 834,000 households, or 4.2 million people. In response to a request from the independent Technical Advisory Panel (TAP) for information demonstrating that 100 per cent of the population of the targeted watersheds would be directly benefited by the project (i.e. participating in project activities), the proponent (World Bank) stated that this estimation was based on the fact that at least one member of every household in targeted watersheds would have the opportunity to participate in project activities. Responding to a second round of questions, the proponent added that "…Based on experience from Sustainable Land Management Project phases I and II (SLMP I and II), about 90% of the households directly participate in project activities with 3 out of 5 members of each household participating. We expect a similar share of participation in RLLP … " The proponent also answered that "…while bio-physical measures will be applied to degraded lands in targeted micro-watersheds, improvements to land are expected to benefit all the individuals who are living within a project watershed" and that "Project activities directly impact non-participating individuals as well as roads, river systems, settlements and other infrastructure in the watershed. Hence, the package of interventions is assumed to directly impact the lives of all individuals within the watershed boundaries".[2] The independent TAP considers that this statement implies that the 4.2 million beneficiaries are probably not people who would receive direct economic support to implement land restoration, watershed management or CSA practices on their own land, or directly participate in activities related to improved livelihood assets, but instead it refers to total beneficiaries (i.e. including indirect beneficiaries). Given the proponent did not provide a description on the calculation process made to estimate direct beneficiaries for each activity, it is not possible for the independent TAP to assess the validity of the figure of direct beneficiaries.

7. Project interventions would also result in a mitigation component because of the carbon sequestration that will occur as a result of improvements in land use, amounting to net emission reductions of 5.6 million tonnes of carbon dioxide equivalent (tCO_2eq) during the first 5 years and a total of 41.5 million tCO_2eq over 25 years.[3] The funding proposal stated that the EX-Ante Carbon-balance Tool (EX-ACT) developed by the Food and Agriculture Organization of the United Nations (FAO) was used to estimate the potential emission reductions. Carbon sequestration would be achieved through reforestation and afforestation, SLWM practices, CSA and restoration of degraded grassland.

8. The independent TAP assessed the application of the EX-ACT tool and concluded that it was adequate. The assessment found that: (1) all emission factors used in EX-ACT to estimate emissions with and without project investments are default values, most of which are very close to the default emission factors provided in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories*; (2) the emission estimates are provided for soil carbon enhancement in severely or moderately degraded grassland through management practices that are consistent with the funding proposal; (3) SLWM and CSA interventions in cropland remaining cropland include nutrient management, no till and residues management, and improved agronomic practices, all consistent with the funding proposal; (4) as part of the project aim, Ethiopia indicates in the funding proposal that soil and water conservation measures can significantly increase organic carbon content in soil and that effective land restoration can play a major role in the sequestration of organic carbon that is lost because of poor land management practices. The project proposal indicates reforestation through assisted natural regeneration as a potential mitigation of carbon emissions but this has not been included in the calculations. In the same way, although the project includes "environmentally friendly livestock production through feed development and management", this has not been included in the EX-ACT assessment.

9. However, the independent TAP noted that the land areas (in hectares) used as input to the EX-ACT tool in each land use "with" and "without" the project were not clearly defined in the

[2] In response to questions from the independent TAP, 20 April 2020.
[3] The proposal gives the value 43.6 million tCO_2eq, which might be an error.

funding proposal. In response to a question from the independent TAP on this matter, the proponent added the following table to the funding proposal, annex E.1 (Integrated economic and financial analysis), showing the land areas used in its EX-ACT assessment:

Categorization in Table 11 of Annex E.1.	Description in Ex-ACT	RLLP Estimate of Total Area of Treatment (ha)
Forest/Plantation (Afforestation-Reforrestation)	Degraded Land	43500
	Annual Crop	17500
	Grassland	10000
	Total	71000
Cropland	SWC 1 on cropland	179500
	SWC 2 on cropland	177000
	CSA	148000
	Total	504500
Grassland	Communal 1 (physical plus bio-physical treatment)	39500
	Communal 2 (physical plus bio-physical treatment in lesser degraded area)	150000
	Communal 3 (physical, bio-physocal treatment and area closure)	222900
	Total	412400
Grand Total		**987900**

1.2 Paradigm shift potential *Scale: Medium*

1.2.1. Potential for knowledge and learning

10. The project essentially scales up the already completed Sustainable Land Management Project (SLMP phases I and II), which is one of the flagship programmes of the Ethiopian Ministry of Agriculture and Livestock Resources (MoA), with a stronger focus in the concept of climate resilience. MoA has been implementing SLWM and CSA practices with World Bank support in six regions, covering 223 major watersheds and restoring productivity in more than two million hectares of degraded watersheds.

11. Subcomponent 2.2 is focused on knowledge generation and management, and communication. The project would carry out a series of impact evaluations to examine the bio-physical impacts of the implementation of SLWM and CSA, and to assess the efficiency of the investments in assets to enhance livelihoods.

12. A geospatial knowledge platform will be established so that information from a variety of sources is available to planners and stakeholders in an accessible format.

13. A strategic communications programme will be developed and implemented under this subcomponent to ensure that all communities are well informed about ongoing project activities and opportunities for participation, to support transparency among all actors, to promote the scaling up of SLWM and CSA practices, and to support the land certification programme.

14. Specific activities of this subcomponent include: knowledge identification, capturing, validation and packaging; strengthening the *woreda*-level (district-level) information centres,[4] production of multi-format support tools for workshops and events; media tours for journalists and relevant government staff to show project results; an annual SLMP Knowledge Fair; stakeholders' workshops to support private sector engagement and policy development; a

[4] An assessment on the current status of *woreda* information centres is provided (funding proposal, annex A.5).

behavioural change campaign; and awareness-raising activities on land registration and cadastral surveys, land laws and procedures and conflict resolution mechanisms.

1.2.2. Contribution to the creation of an enabling environment

15. The guideline "Exit Strategy and Performance Assessment for Watershed Management",[5] which would be used to design exit strategies for each participating watershed, describes a systematic approach for planning and implementing appropriate actions to ensure optimum sustainability and to evaluate the status of a watershed management project.

16. To achieve long-term sustainability of the proposed interventions, the project would support the development and application of a regulatory framework for the establishment of watershed user associations (WUAs) as legal entities capable of sustaining participatory watershed management.

17. Other components that would support long-term sustainability include strengthening and development of diversified livelihoods and value chains (including enhanced processing and storage capacity and links with the private sector); increased production efficiency achieved through SLWM and CSA interventions, capacity-building and knowledge management activities; and the adjudication of second-level landholding certification, which would encourage long-term planning.

18. Maintenance costs after the project lifespan are estimated to be 2.5 per cent of initial costs including beneficiary in-kind contributions, and would represent a total of USD 10.4 million per year.[6]

19. CSA and SLWM interventions in private lands would be maintained using the income generated by increased agricultural production achieved through these practices. In response to a question from the independent TAP on the financial capacity of the WUAs to take responsibility for operation and maintenance of the physical soil and water conservation and gully control measures in communal lands (which seem to involve the construction of infrastructure that would require maintenance after project lifespan), the proponent responded that "[the infrastructure] …is typically made of stone (not concrete), maintenance of which can be undertaken by the community. Just like previous SLMP projects, RLLP follows a participatory approach for implementation based on Ministry of Agriculture's Community Based Participatory Watershed Development (CBPWD) Guidelines. The guidelines indicate that bund maintenance and maintenance of other structures/assets will be undertaken through self-help (table 6.1 page 49 of CBPWD Guideline Annex). Institutional strengthening, especially at level of Woreda, Kebele and WUAs will play a major role in maintenance of SLM interventions."

1.2.3. Contribution to the regulatory framework and policies

20. Institutional strengthening would be addressed through (1) the development of the regulatory framework required for the establishment of WUAs, which are essential for the sustainability of project interventions, frameworks for incentive schemes such as payments for environmental services, and community guidelines for sustainable land-use practices; (2) the strengthening of the land administration system; (3) the review of the environmental legislation related to the use and management of natural resources; and (4) capacity-building. The project would provide accountants to support the Woreda Offices of Agriculture and Livestock Resources (WoALR) and a focal person in each participating district (*woreda*), and part-time community facilitators at the ward (*kebele*) level. This subcomponent would also provide technical assistance for training in this field.

[5] Annex L.2.
[6] Annex E.1, page 2.

21. To improve coordination, quality and timeliness of data collection and to ensure pertinent information is well organized, documented and accessible, the project would provide electronic tablets to be used for collecting information on project activities and results, combined with appropriate survey and mapping software, and would support the use of unmanned aerial vehicles (drones) to generate high-quality aerial imagery data to support planning, monitoring, and land certification.

1.2.4. Scalability and replicability

22. The replicability potential of the project activities is assessed as high, on the basis of the strong knowledge generation and dissemination component, and the fact that most SLWM and CSA interventions require relatively low investments.

1.3 Sustainable development potential *Scale: High*

1.3.1. Environmental co-benefits

23. The EX-ACT emission reduction tool showed that the project is expected to add 467 tonnes of herbicides per year to the environment and assumed that people were currently controlling weeds without herbicides. The proponent's argument was that herbicides would replace tillage (annex A.3 – CSA). However, the independent TAP notes that FAO warns that the use of pesticides and herbicides in crops to eradicate pests and weeds kills bees which, through pollination, play a major role in maintaining biodiversity, and that continued use of such chemicals leads to degradation of the ecosystem.[7]

24. USD 6,000 per tonne is a conservative assumption of the cost of herbicides on the lower price range,[8] using 467 tonnes per year would mean a total annual cost for farmers of USD 2.8 million. This expense may jeopardize the economic sustainability of project interventions.

25. Considering that 95 per cent of the produce comes from small-scale farms of between 0.5 and 2 ha,[9] where the intensive workforce would be available, the independent TAP considers that instead of being replaced by herbicides, tillage should be replaced by the use of mulch, cover crops and manual weeding using simple hand-held tools.

26. For these reasons, the final version of the proposal states that project funds would not be used to purchase pesticides or herbicides.

27. The avoidance of tillage should be carefully assessed for each case depending on soil characteristics, because avoiding tillage in degraded and compacted soils can render them unproductive.

28. The proposal states that one of the possible CSA actions is the use of disease- and drought-resistant crops. However, there is no proper description of this option in the proposal. By failing to give a specific description of what disease- and drought-resistant crops are, the project implicitly allows the use of genetically modified (GM) seeds. GM crops entail the use of agrochemicals and represent a series of environmental threats such as impacts on local crop genetic diversity through cross-pollination, negative impacts on fauna and soil ecosystems from the use of pesticides and herbicides, and contamination of water sources. As stated in the proposal, CSA should entail moving towards an agroecological approach.[10]

[7] FAO. 2018. *Climate-Smart Agriculture - Training Manual for Agricultural Extension Agents in Kenya*.
[8] Board of Regents of the University of Nebraska-Lincoln. 2017. *Approximate Retail Price ($) Per Unit of Selected Herbicides for Field Crops*.
[9] Funding proposal, page 42.
[10] Funding proposal, page 25.

29. Agricultural practices involving the use of GM seeds and herbicides are capital intensive, and inputs are mostly imported. Also, the use of either GM or hybrid seeds eliminates the capacity of farmers of developing their own seed banks, because patented seeds cannot be reproduced by the farmers because of legal and/or biological[11] barriers. In addition, the maintenance of existing seed banks could be compromised by the effects of cross-pollination. The availability of seed banks, whether they are at household or communal level, and the avoidance of using agrochemicals, are important features of food security because they give farmers independence from the socioeconomic context, thus improving resilience.

30. When questioned by the independent TAP on the use of GM and hybrid seeds, the proponent responded that "…GMO will not be used under RLLP. Ethiopia has local varieties (farmer's varieties) which are resistant to disease and drought. During SLMP II, a study conducted by Biodiversity International (BI) showed that traditional farmers' varieties tested under farmer's conditions are more productive than non-local varieties, with yield gains of up to 60 per cent under standard practices. Some of the local varieties are more resistant to pests and diseases, thus reducing the need for pesticides." The final version of the proposal states that project funds would not be used to purchase GM seeds or patented hybrid seeds.[12]

31. The major environmental benefit, which is central to the project, is the decrease of soil erosion rates, which would be achieved through various SLWM and CSA interventions, and which has direct positive effects in soil fertility, river siltation and water quality. Other environmental co-benefits include increased biodiversity and carbon sequestration.

1.3.2. Social co-benefits

32. The use of efficient cookstoves is expected to reduce indoor air pollution and have a positive impact on the health of the population, as well as reducing pressure on local biomass resources (manure and crop residues) which could then be used on fields as mulch to enhance soil fertility and reduce the growth of undesired weeds.

33. Through the enhancement of agricultural production and water quality and availability, CSA and SLWM interventions would have a positive effect on the food and water security status of the communities.

1.3.3. Economic co-benefits

34. The main economic co-benefits of the project are the extra income resulting from increased agricultural production and the livelihood assets provided by the project. As per the detailed budget,[13] these assets would include forage processing mills, forage balers, grain threshers, grain mills, fattening livestock, dairy processing equipment, poultry and egg farming, bamboo processing, vegetable containers, apiculture equipment and construction of warehouses.

35. Support for efficient cookstoves would be limited to the formation of common interest groups and capacity-building. The budget does not include funds for purchasing equipment or materials to manufacture cookstoves.

1.3.4. Gender-sensitive development impact

36. As in the previous SLMPs, women will be specifically targeted for the adjudication of landholding certificates, for the design and implementation of income-generating activities, and to participate in common interest groups and WUAs.

[11] Hybrid seeds do not reproduce true to the parent plant and are often sterile.
[12] Funding proposal, page 25.
[13] Annex K.1: RLLP Detailed Budget with Co-financing. "1.3 Livelihood Diversifica-GCF" spreadsheet.

37. Women and children are expected to be the main beneficiaries of the improved cookstoves in terms of health and timesaving.

38. The project will include a socioeconomic impact evaluation, which would be conducted by the World Bank's Africa Region Gender Innovation Lab, and would include an evaluation of specific gender-sensitive development impacts such as strengthened implementation practices for equitable and meaningful participation of females and males in SLWM and CSA interventions.

39. Gender considerations for the design and implementation of project interventions are correctly described in the Gender Action Plan.

1.4 Needs of the recipient *Scale: High*

1.4.1. Vulnerability of the country and climate rationale

40. The climate rationale for the project is exclusively focused in soil erosion, which is expected to increase because of the increase in annual and wettest month precipitation projected for Ethiopia by climate models.

41. The funding proposal states that, as a "conservative estimation", climate change could increase annual soil erosion by 50 per cent by 2050.[14] However, the independent TAP considers this is not "conservative", given that it is actually close to the worst-case scenario, where using the results of the models which predict the higher increases in rainfall result in an increase in the soil erosion rate of 45 per cent by 2050. The technical note on modelling of soil loss[15] shows that when using the mean values for the projected change in precipitation,[16] the change in soil erosion would be of 5 per cent in Anjeni and 8 per cent in Maybar by 2050. When questioned by the independent TAP on this inconsistency, the proponent explained that "Results indicate that the expected increase in soil erosion for the two representative watersheds is between 7 per cent (using BIO12) and 10 per cent (using BIO13) by 2050 when the mean precipitation scenario is considered. If the maximum precipitation is considered, a 40–70 per cent increase in annual soil erosion would be expected. In practice, the projected increase in soil erosion varies across watersheds and can be much higher. For example, if Maybar alone is considered, the climate scenario with maximum precipitation results on doubling of soil erosion (102 per cent increase) using BIO13. Furthermore, the projected impacts on soil erosion are likely to increase if other Representative Concentration Pathways are considered (e.g. RCP6 and RCP8.5) instead of RCP 4.5. Hence, an increase in annual soil erosion by 50 per cent seems to be a reasonable consideration."

42. The projected changes in precipitation vary greatly, depending on the climate model data used (funding proposal, annex A.8, table 4):

Table 4: Estimated Change in Soil Erosion by 2050

	Anjeni			Maybar		
Erosivity model	Mean	Max	Min	Mean	Max	Min
Annual	5.50%	44.97%	-8.98%	7.87%	41.14%	-11.12%
Wettest month	5.35%	38.47%	-9.41%	16.36%	101.84%	-20.61%

Source: Author Calculations

[14] Funding proposal, page 8.
[15] Annex 8 - Technical note to modeling soil loss.
[16] The projected annual and wettest month precipitations for 2050 used to estimate soil loss under climate change were extracted from the nineteen climate models included in the Intergovernmental Panel on Climate Change Fifth Assessment Report (AR5) climate projections for the Anjeni and Maybar locations (scenario RCP4.5).

43. The independent TAP considers that, although the intensity of the impact that climate change could have on soil loss can be questioned, it is clear that the most likely case is that erosion increases.

44. Ethiopia's second national communication states that the sectors which are most vulnerable to climate change are small-scale agriculture, water and human health. Over 80 per cent of the Ethiopian population lives in rural areas, and is highly dependent on agricultural and forestry production for income, energy, food and building materials. Water availability and quality is reliant on land-use practices and climate change. Additionally, agriculture accounts for 45 per cent of gross domestic product (GDP) and more than 80 per cent of exports.

45. The proposal cites the findings of an investigation published by the International Food Policy Research Institute, which concludes that there is evidence that rainfall would become more variable in the future in Ethiopia; thus severe droughts and floods may have a greater impact on crop production and household welfare.

46. The selection of the targeted watersheds was mainly based in their state of degradation and erosion rate. Other secondary aspects included food security, agroecological representativeness, population density, accessibility, availability or potential for surface and ground water, proximity to existing SLMP *woredas*, potential to contribute to reduction of sediment load to national lakes, and implementation capacity.

47. The selection criterion on food security is defined as "Rural relatively 'food secure' area".[17] At first sight, this appears to mean that the communities need to have an acceptable level of food security to be selected. When questioned on this by the independent TAP, the proponent confirmed that this is not correct and that "… the list of selected major watersheds includes watersheds that are relatively food secure (FS), food insecure (FI) and those with status that is currently unknown/unclear. After an initial screening of all watersheds based on environmental and social criteria, these major watersheds were selected based on their relative ranking of land degradation."

1.4.2. Economic and social development

48. The low economic development of the targeted area is demonstrated by the indicators shown in the proposal,[18] which cover water security, energy, settlement, health and education. Ethiopia is classified as a least developed country and has a GDP per capita of USD 707 (2017).

1.4.3. Absence of alternative sources of financing

49. The project would indirectly support access to other sources of financing by investing in the development of value chains, promoting partnerships with the private sector and enhancing productivity.

1.4.4. Need for strengthening institutions and implementation capacity

50. The need for strengthening of institutions is recognized in the proposal and would be addressed through the activities described in paragraph 20 above.

1.5 Country ownership *Scale: High*

1.5.1. Alignment with national climate strategy and policies

[17] Annex A.1 – RLLP Watershed Selection, page 1.
[18] Funding proposal, page 59.

51. The project has been designed under the long-term (2009–2023) Ethiopian Strategic Investment Framework for Sustainable Land Management and the Agricultural Sector Policy and Investment Framework, and it is a scaling up of SLMP I and II. It is designed to be complementary to other related government programmes such as the Productive Safety Net Program and the Second Agricultural Growth Program. The project is in line with Ethiopian Programme of Adaptation to Climate Change and with the country's nationally determined contribution, as explained in the proposal.

1.5.2. Capacity of accredited entities or executing entities to deliver

52. The executing entity of the project is the Government of Ethiopia through the Federal Ministry of Agriculture and Livestock Resources (MoA). MoA has been implementing SLMP I and II with World Bank support in six regions through a holistic and coordinated landscape management framework, covering 223 major watersheds and restoring productivity in more than two million hectares of degraded watersheds. The World Bank's experience and responsibilities in the SLMP are described in the proposal.

1.5.3. Engagement with civil society organizations and other relevant stakeholders

53. The design of the proposal is based on the previously implemented SLMP I and II. Public participation and consultations with stakeholders are clearly described in the funding proposal (annex D.1), including level of awareness, agreements, concerns raised and recommendations.

54. The identification and planning of concrete SLWM, CSA and livelihood interventions will be based on community needs and priorities, defined through a participatory watershed planning process guided by the "Community Based Participatory Watershed Development Guidelines".[19]

55. The component on land tenure enhancement would involve local-level participatory land-use planning exercises within the major watersheds, through technical assistance to implement consultation workshops at the community level.

56. The strategic communications programme included under subcomponent 2.1 will be used to inform and mobilize communities, and to enhance project visibility and transparency among stakeholders.

57. The implementation of SLWM and CSA is highly dependent on labour from the benefited population. The World Bank calculates that during the previous SLMP II the contribution from beneficiaries from 2014 to 2019, translated into monetary terms, reached USD 27 million (or 23.5 per cent of the total project budget).[20]

1.6 Efficiency and effectiveness *Scale: High*

1.6.1. Cost-effectiveness and efficiency

58. Concessional funding is justified by Ethiopia's status as a least developed country, with a GDP per capita of USD 707 (2017).

59. The economic analysis was developed following the World Bank guidelines, using a 25-year net benefit analysis (5-year implementation phase followed by 20-year capitalization phase) using a 5 per cent discount rate. The results give an economic net present value (NPV) of USD 3,312 million, an economic internal rate of return (IRR) of 47 per cent, and a payback period of 5.3 years.

[19] Developed in 2005 by MoA.
[20] Funding proposal, page 20.

60. Excluding the social value of carbon (reduced greenhouse gas emissions) gives an economic NPV of USD 2,231 million, an economic IRR of 30 per cent and a payback period of 7.3 years.

61. Regarding sensitivity, considering a case where, due to an increase in costs, the project only achieves coverage of half of the targeted area, the estimated economic NPV falls to USD 1,560 million and the economic IRR drops from 47 to 27 per cent.[21]

62. Although an exhaustive analysis of the adequacy of allocated funds and expected costs and financial benefits is not possible because of the high quantity of individual investments considered in the budget and financial analysis, the independent TAP considers that that in general terms the assumed costs of the SLWM, CSA and livelihoods interventions and expected benefits seem reasonable. In response to requests by the independent TAP, the proponent submitted a more detailed unit cost breakdown for the SLWM interventions, which amount for USD 57 million of GCF financing.

1.6.2. Amount of co-financing

63. GCF would provide a total of USD 165.2 million: USD 107.2 million as senior loan plus USD 58 million as grant.

64. The financing structure involves several co-financing partners. The International Development Association of the World Bank would provide USD 100 million. The governments of Norway and Canada, through the World Bank's Multi-Donor Trust Fund (MDTF) would provide USD 19 million and USD 12 million, respectively.

65. The independent TAP noted that the USD 12 million of co-financing from the Government of Canada is shown in the budget as "potential", and the co-financing commitment letter has not been submitted. There are some key cross-cutting components, such as capacity-building and land tenure activities, which depend on these funds. When questioned on this matter, the proponent stated that "The Canadian contribution is subject to legislative approval, but the Bank anticipates that the full amount will be transferred in accordance with the instalment schedule. The Bank and Government of Canada have signed an Administration Agreement (provided as a separate attachment to this document), which indicates the Government of Canada has agreed to provide the sum of CAD 20 million to the RLLP MDTF."

66. Additional costs for capacity-building and project management would be covered with funds from the German Development Agency (USD 13 million) and the Government of Ethiopia (USD 10 million). In-kind contributions from project beneficiaries are estimated at USD 99.1 million.

1.6.3. Financial viability

67. Long-term financial viability would be entirely dependent on the grade of economic success achieved by the investments in livelihood assets and on the improvement in productivity that would result from well-implemented SLWM and CSA practices.

1.6.4. Best practices

68. Considering that the project represents a scaling up of SLMP I and II, the design was based on key achievements and lessons learned during the implementation of these projects.

69. The present proposal is significantly focused on the development of resilient and diversified livelihoods. These investments would also be guided by the lessons learned during

[21] Annex E.1. Economic and Financial Analysis.

SLMP I and II, which supported activities such as apiculture; poultry, sheep and goat fattening; vegetable and fruit farming; and manufacturing of improved cookstoves.

II. Overall remarks from the independent Technical Advisory Panel

70. The independent TAP recommends this funding proposal for approval.

Response from the accredited entity to the independent Technical Advisory Panel's assessment (FP 136)

Proposal name:	Resilient Landscapes and Livelihoods Project
Accredited entity:	World Bank
Country:	Ethiopia
Project/programme size:	Large

Impact potential
Thank you for the assessment. RLLP targets areas and communities of watersheds that are vulnerable and require rehabilitation. Since these interventions are done on communal land or groups of private land, benefits of rehabilitation work and other interventions are received by all of the community members. For example, rehabilitation of upper areas of watershed reduces soil erosion in downstream areas as well. Each household has the opportunity to participate and provide community support in rehabilitation activities. Based on previous SLM experiences, almost all of them participate.
Paradigm shift potential
Thank you for the assessment.
Sustainable development potential
Thank you for the assessment. Necessary updates have been made to the FP.
Needs of the recipient
Thank you for the assessment. As clarified to ITAP, the projected impacts on soil erosion are intuitively likely to increase if other Representative Concentration Pathways are considered (e.g. RCP6 and RCP8.5) instead of RCP 4.5.
Country ownership
Thank you for the assessment.
Efficiency and effectiveness

Thank you for the assessment.
Overall remarks from the independent Technical Advisory Panel: The WB team appreciates ITAP's review and assessment outcomes and agrees with its overall remark.

Gender documentation for FP136

RLLP Gender Approach & Sustainable Land Management Project- 2

Gender Assessment Report (Second Draft)

MAY 6, 2020

ADDIS ABABA

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Acronyms

AGP	**Agricultural Growth Program**
BoA	**Bureau of Agriculture**
CBPWDG	**Community Based Participatory Watershed Development Guidelines**
CDD	**Community Driven Development**
CDP	**Commune Development Program**
CF	**Community Facilitator**
CGIAR	**Consultative Group on International Agricultural Research**
CIG	**Community Investment Group**
CPF	**Country Partnership Framework**
CRGE	**Climate Resilient Green Economy**
CSA	**Climate Smart Agriculture**
CSRP	**Community Storage Receipts Program**
CWT	**Community Watershed Team**
DA	**Development Agent**
EFA	**Economic and Financial Analysis**
EMP	**Environmental Management Plan**
ESIF	**Ethiopia Strategic Investment Framework**
ESMF	**Environmental and Social Management Framework**
FHH	**Female-Headed Households**
FTC	**Farmer Training Center**
FY	**Fiscal Year**
GoE	**Government of Ethiopia**
GRM	**Grievance Redress Mechanism**
GRS	**Grievance Redress Services**
GTP	**Growth and Transformation Plan**
IGA	**Income Generating Activity**
KLAUC	**Kebele Land Administration and Use Committee**
KWT	**Kebele Watershed Team**

LIFT	**Land Investment for Transformation Project**
M&E	**Monitoring and Evaluation**
MDTF	**Multi-Donor Trust Fund**
MoALR	**Ministry of Agriculture and Livestock Resource**
MoFEC	**Ministry of Finance and Economic Cooperation**
MoWIE	**Ministry of Water, Irrigation and Electricity**
MSE	**Micro and Small Enterprise**
MYDP	**Multi-Year Development Plan**
NRLAIS	**National Rural Land Administration Information System**
NRM	**Natural Resource Management**
PES	**Payment for Environmental Services**
PIM	**Project Implementation Manual**
PPR	**Post Procurement Review**
PPSD	**Project Procurement Strategy Document**
PSNP	**Productive Safety Net Program**
PCU	**Project Coordination Unit**
REILA	**Responsible and Innovative Land Administration Project**
RLLP	**Resilient Landscapes and Livelihoods Project**
RPF	**Resettlement Policy Framework**
SA	**Social Assessment**
SDP	**Social Development Plan**
SLLC	**Second Level Landholding Certification**
SLM	**Sustainable Land Management**
SLMP-I	**Sustainable Land Management Project Phase-I**
SLMP-II	**Sustainable Land Management Project Phase-II**
SLWM	**Sustainable Land and Water Management**
SORT	**Systematic Operations Risk-rating Tool**
SURED	**Sustainable Use of Resources for Economic Development**
TA	**Technical Assistance**
WLRC	**Water and Land Resource Centre**
WMUP	**Watershed Management and Use Plan**
WoANR	**Woreda Office of Agriculture and Natural Resources**
WoLAU	**Woreda Office of Land Administration and Use**

WUA	**Watershed User Association**

1. Introduction

Land degradation has important gender dimensions. [1] The UNDP states that land degradation increases the pressure on women differentially than men in their effort to meet practical needs while pausing the long term structural challenges to support their families under increasingly difficult environmental, physical, social, and economic conditions. Women are also challenged by the consequences of land and environmental degradation induced fuel-wood and water shortage, making their work even more challenging.

Analysis also indicated the constraints to women's access to equitable role in decision-making concerning land resources and their engagement in sustainable environmental and land management such as: (a) insecure land use rights, (b) the low value assigned to labour and subsistence farming, (c) lack of access to credit and (d) lack of opportunities to gain and share technical knowledge[2]. Further, UNCCD[3] illustrated that, often 'women's inequitable access to secure property rights forces them onto marginal, fragile, highly degradable lands'.

The Sustainable Development Goal (SDG) Five on achieving gender equality and empowering all women and girls is emphasized as not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. Providing women and girls with equal access to the natural resource base and equal representation in decision-making processes will ignite the returns of RLLP investment and benefit broader society. Thus, the design of RLLP will base its parameters towards contributing to the SDG Five goal while creating opportunities for women's equal rights to economic resources, as

[1] Evidence in the context of land and natural resources show that GBV is often employed as a way to maintain power imbalances, violently reinforcing sociocultural expectations and norms and exacerbating gender inequality.

[2] Mother Earth: Women and Sustainable Land Management, Gender Mainstreaming Guidance Series, 2007.

[3] Gender Programme: Empowering Women to Invest in Sustainable Land Management (SLM), the Global Mechanism, United Nations Convention to Combat Desertification.

well as access to ownership and control over land and other forms of the natural capital, in accordance with GoE laws.

Understanding gender aspects of natural resources management is an entry for reversing environmental and land degradation in the RLLP landscape. Women manage natural resources daily in their roles as farmers and household providers; typically, responsible for growing homestead crops, collecting fuel wood and water. Overall, local values and practices have vast impact on the access to natural resources and the level of engagement of women in the agriculture sector. The inequitable access and unequal playing fields has led women farmers to produce on average 23% less than their male counterparts in Ethiopia[4]. However, notwithstanding their reliance on natural resources, women have less access to and control than men, despite their constitutional rights to equal land ownership, administration and use. Landless rural women often depend on common property resources for fuel wood, fodder and food. As part of the overall RLLP investment, protection of the natural resources base is at the center, where rural women and men will be empowered to participate in decisions that affect their needs and vulnerabilities, and in turn lend hands for effective interventions for their conservation and sustainable use.

1.1. Lessons from SLMP-2 Gender Focus

SLMP-2 has used gender mainstreaming as a strategy for making concerns and experiences of women and men an integral part of the design, implementation, monitoring and evaluation of sub project activity. The SLMP-2 has been able to create jobs, generate income, sustain livelihoods for women and youth in its project components as an integral

SLMP-2 Gender Focus: Facts-Mid Term

SLMP-2 has made considerable progress in developing and using a gender mainstreaming guideline to ensure the inclusion of gender issues in its subprojects/activities. All reporting in SLMP-2 is gender disaggregated. Overall, SLMP-2 ensured a 25% proportion of Female Headed Households, while women in Male Headed Households also draw various forms of project benefits. Participation of women in decision making in SLMP-2 coordination platforms at different levels of the project implementation (CWT, KWT, WTC, and WSC) is 18.3%. The SLMP-2 staffing has 15% women at all levels of the project coordination units.

Gender and youth inclusive approach of SLMP-2 in all components benefited men and women, with focused support to vulnerable groups and underserved peoples. SLMP-2 is systematically implementing the Social Development Plan which has a gender, vulnerability and youth lens where, soil and water conservation work benefited women (56,525), engagement of jobless and landless youth in paid work (24,192) and landless households involved in paid work (5,195). The livelihoods improvement intervention, on people who have impact on the natural resource base focused on households with small landholding (less than 0.25ha in SNNP) or landless, jobless and land less youth and women. SLMP-2 income generation activities used SLMP-2 objective on reducing impact on the natural resource base where, women targeted for IGA (4,207), engagement of jobless and landless youth (2,334), landless households involved in paid work (1,717) and people with disability targeted for IGA (110). Besides, improved cook stoves (ICs) have drastically reduced women's time in collecting firewood.

part of the operation. The following midterm gender focus of the SLMP-2 evidence provides the basis, including gender-disaggregated data.

1.2. RLLP Gender Approach

The operational steps encompass resilience building through soil and water conservation works, enhanced tenure security, homestead and farmland development, livelihood improvements (access to improved, targeted livelihoods support in rehabilitated watersheds including creating jobs, organized cooperatives, women or girls only) and climate smart agriculture, affordable and innovative technology (household energy). For RLLP, facilitating the acquisition of Improved Cookstoves, will free up women's time, which they could potentially use in developing income generating activities (IGAs). These IGAs could include promotion of ICs, renewable energy options for households, cultivating fruit trees, bamboo handicrafts, beekeeping, etc.

The RLLP components will take into account the different roles of men and women in advancing resilient livelihoods at multiple scales, and respond to the unique interests, priorities and needs of women and men in order to close gender gaps. Women and men at all levels of the RLLP decision making should be involved as key actors in the assessment, design, monitoring, and evaluation of interventions starting from the community watershed committee. Both women and men need to benefit from a gender approach that reinforces their joint participation and equitable benefit in RLLP. Thus, RLLP will prioritize concrete actions that diversify income and improve livelihoods of communities involved in the RLLP value chain using a gender filter to address the gender aspects of natural resources.

A rigorous impact evaluation of gender innovations under RLLP is currently being carried out which will consider gender-nuanced household outcomes, such as land-use decision making, investment in land and livelihood diversification, as well as employment and earning outcomes The impact evaluation from SLMP 2 experiences will better inform and help determine constraints and experiences that limit female and male project beneficiaries', and whether women's ability to realize their equitable benefit from the natural and environmental resources potential were effectively improved by the project's activities/innovations.

Based on the preliminary findings of this gender assessment, the following major indicators and a draft Gender Action Plan are designed to guide the gender mainstreaming process in RLLP.

Tentative RLLP Component Based Gender Focus Indicators

Core Indicators:

- Strengthened implementation practices (planning, implementation and monitoring processes) for equitable and meaningful participation of females and males in sustainable land restoration and water conservation practices (50% female representation in all stages)

- Integrated landscape management practices adopted by local communities based on practical and strategic gender needs and priorities

Component 1: Integrated Watershed and Landscape Management

- Households who directly benefited from integrated watershed and land use management (number, men and women)
- Proportion of women involved in the planning and implementation of the natural resource program increased to 50%
    - Female participation in project coordination platforms (CWT, KWT, WSC and WTC) increased to 50%
- Number of gender sensitive technologies demonstrated in the project area (energy, labour and time saving cook stoves, bio gas, etc) (Number)[5]
- Number of technologies promoted to public RLLP extension services (total and disaggregated by gender) (Number)
- Provisions to remove participation of pregnant and lactating women in watershed development work, from onset of pregnancy to until 24 months postpartum (one PIM, updated)
- Clarify work norms in the PIM, on 50% reduction of workload and allocation of light work for women (one PIM, updated)

Component 2: Institutional Strengthening, Capacity Development, and Knowledge Generation and Management

- Formal community-based institutions, self-help groups and associations established and functional (Number of women participants)
- Proportion of women's participation in decision-making processes in watershed steering committee (WSC) and Watershed Technical Committee (WTC) increased from 18.3% to 50%.
- No of traditional institutions and leaders that accessed gender training (number, men and women)

Component 3: Rural Land Certification and Administration

- Second level landholding certificates issued (of which female numbers).
- Households who have received second level land holding certificates (sub-indicator women who have received second level land holding certificates individually or jointly with a man (Number))
- Landless youth who have been issued a second level certificate or other legal documentation to use communal land holdings in exchange for restoring land (Sub-indicator - Of which female (Number))
- People participating in income-generating activities supported by the project (Sub-indicator, Of which female (Number))
- Equitable (50%) participation of women and men in awareness programs on equal land rights and holdings and in land programs

Component 4: Project Management

[5] This indicator assesses the number of gender sensitive technologies demonstrated by the project. Gender sensitive technologies are defined as: (i) technologies based on needs and interest of female farmers; (ii) technologies that reduce time and labor for women farmers; and (iii) technologies that are accessible and affordable by women farmers.

- RLLP M&E report (sex disaggregated data)
- RLLP Gender Impact Assessment (two reports, midterm and end of project)
- Updated RLLP Gender Mainstreaming Guideline (one report, updated guideline)
- RLLP Gender Focused Capacity Building (gender disaggregated capacity building reports and gender focused trainings)
- Updated SLMP PIM to integrate gender provisions and tools for improved implementation practices at the grassroots levels (one PIM, updated)
- Training plan on the updated PIM developed, with an earmarked budget (one, training plan)
- Capacity building activities /training/ on gender mainstreaming and updated PIM provisions for project implementers at different levels (Number of training sessions)
- Gender sensitive information, education and communication (IEC) materials disseminated to guide implementation of gender dimensions of the project (Number and type of IEC materials)

1.3. Background on the national frameworks

The Government of Ethiopia is strongly committed to promoting gender equality and women's empowerment and has adopted several institutional and policy measures. There are number of regional and international provisions that the country has ratified in relation to women and girls' human rights. Ethiopia is party to international instruments upholding gender equality and the rights of women and girls including the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), the Beijing Declaration and Platform for Action (BDPFA) and the Protocol of the African Charter on the Rights of Women in Africa (Maputo Protocol) and Convention on the Rights of Child, Declaration on the Elimination of Violence against Women.

At the national level, various laws and legislations including the 1995 Constitution of the Federal Democratic Republic of Ethiopia, allow Ethiopian women and men to enjoy the same rights. Women and men have equal constitutional rights to property and land ownership and use. This is affirmed in Article 35 (7), which states "Women have the right to acquire, administer, control, use and transfer property. They have equal rights with men with respect to use, transfer, administration and control of land. They shall also enjoy equal treatment in the inheritance of property."

In addition to this, the country has entered national commitments for universal primary education for both boys and girls; elimination of gender disparity at all levels of education and reduction of maternal mortality rate, among others. The revised Family Code of 2000 also established standards for equality of women and men, including minimum age of marriage for girls at 18, among other provisions. Furthermore, there is a marked

improvement in the revision of laws, including the 2005 Penal Code, which has criminalized rape, female genital mutilation/cutting, abduction, and early marriage. The Ethiopia Demographic and Health Survey (2016) indicates that 33% of women age 15-49 have experienced physical or sexual violence; domestic violence is the most common form of violence towards women (See Annex 2, Regional GBV data)

Regional laws of Ethiopia further outline this right to land ownership and use. For example, Proclamation No. 130/ 2007 of Oromia Rural Land Use and Administration to amend Proclamation No. 56/2002, 70/2003, 103/2005 states that "women have equal rights with men to possess, use and administer the rural land" along with the responsibility to take care of the environment.

The 1995 Constitution further establishes the responsibility of the government to ensure equitable participation in economic and social development, in its Article 89. Similarly, the Federal Democratic Republic of Ethiopia Rural Land Administration and Land Use Proclamation 456/2005 outlines how necessary it has become to "sustainably conserve and develop natural resources and pass over to the coming generation through the development and implementation of a sustainable rural land use planning based on the different agro-ecological zones of the country." Ethiopia is also preparing to amend the Rural Land Administration and Land Use law in a way that will improve women's benefit from land resources and land lease rights, according to Government Communication Affairs Office.[6]

However, efforts need to go beyond laws and policies towards taking special measures to address the needs and priorities of women and men in land management practices, with the assumption that women suffer the most from land degradation and resulting water insecurity and stress in many communities, as they are often the ones responsible for food and water security.

Given that women have been historically disadvantaged by lack of access to different resources, including land and products, they need to be given priority in such development interventions. This unequal access to and control over resources is affirmed by some national level figures. For example, in Ethiopia, women crop and livestock holders are much lower in number than that of men. As can be seen from the data below, in the 6 target regions of RLLP, of the 17,552,761 holders of crop, livestock or both resources, only 23% are females.[7]

[6] http://www.gcao.gov.et/web/en/-/ethiopia-to-amend-rural-land-administration-law, accessed on May 28, 2018

[7] FDRE CSA (2016), Agricultural Sample Survey 2015/2016 (2008 E.C.), Land Utilization (Private Peasant Holdings, Meher Season)

Table 1: Crop and livestock holders, disaggregated be region and sex

Region	Holders (Crop, livestock of both)		
	Females	Males	Total
Benishangul Gumuz	47,956	177,532	225,488
SNNP	981,728	3,974,899	4,956,627
Gambella	9,320	36,286	45,606
Tigray	249,059	734,960	984,019
Amhara	913,757	3,908,228	4,821,985
Oromia	1,119,660	5,399,376	6,519,036
Total	3,321,480	14,231,281	17,552,761

There are emerging discussions on the gender dimensions of land degradation[8], which indicate that gender roles and women's lack of access to and control over land ownership should be forefront in the discussions. Women and men suffer differently from the effects of land degradation and resulting food insecurity and climate change. Further, Gender-differentiated roles related to land and resources can also put women in a more vulnerable position to suffer gender-based violence. In general, women often lack access to information, finances, skill and time. Therefore, measures to address land degradation, ensure land management and climate smart agriculture should take into consideration gender gaps (including risks of gender-based violence) in access to resources, the gendered division of labor, constraints and challenges to women and men's participation; and identify strategies on how best to engage both groups as well as provide prevention and mitigation measures to gender based violence

National policies such as the Environmental Policy of Ethiopia of 1997 and the Energy Policy of Ethiopia have been trying to address the special needs and interests of women, as key actors in natural resource use and management. The Environmental policy of Ethiopia stresses that women should be treated equally with men, and involved in program, policy, project design, implementation and decision-making process, it further outlines that it gives emphasis to women pertaining to water resources. As the policy stated, one of its objectives is "to involve water resource users, particularly women and animal herders, in the planning, design, implementation and follow up in their localities of water policies, programmes and

[8] Samandari, Atieno Mboya (2017), Gender Responsive Land Degradation Neutrality, United Nations Convention to Combat Desertification

projects to carry them out without affecting the ecological balance". It also aims to ensure women's empowerment through participation in "population and environmental decision making, resource ownership and management", while also promoting off-far and on-farm income generating activities for landless women as well as those who have land. The policy further outlines its aim to increase the number of female extension agents working in the fields of natural resource and environmental management.

Other national programs, for example by Ministry of Water, Irrigation and Sanitation Ministry aim to enhance women's access to climate sensitive technologies. The Alternative Energy Directorate of the Water, Irrigation and Sanitation Ministry, has taken measures to enhance women's access to alternative sources of energy, through provision of alternative sources such as improved cook stoves and biogas. Furthermore, the Ministry has encouraged the participation of women in the production of such technologies. As reports indicate, in 2012/13 alone, at the national level, 2,004,751 improved cook stoves were distributed to 3,491 individuals, of which 74.96 percent were females.[9]

Given the presence of such policies, and strategies, it is imperative for RLLP to strengthen linkages with such programs and stakeholders at the Federal, Regional and Woreda levels to enhance the impact of the program and avoid duplication of efforts.

1.4. Background of the study population

Demographics in Ethiopia indicate that there is disparity in adult literacy, employment rate and labour force migration of women and men at the national level. In the education sector, despite the gaps in female and male enrollment and achievement in secondary and tertiary level education, a marked development was seen in bridging the gender gap in primary level education, owing to the development and implementation of the Education Sector Development Program (ESDP IV) and Girls' Education and Gender Equality Strategy of 2014.

National level figures show that the gender parity index (GPI), or the female gross enrollment ratio divided by male gross enrollment ratio at primary level from 1999 (2006/07) to 2008 (2015/16) has ranged from 0.87 to 0.95. While the capital, Addis Ababa has the biggest GPI indicating that there are more girls attending primary education than boys, in the rest of regions, boys are more likely to attend primary education than girls, as can be seen from the case of Benishangul Gumuz where GPI is 0.84 and Harari where it is 0.86. In addition, the fact that more females are leaving secondary school is reflected in the low retention rate of girls and the GPI at secondary and tertiary level education. A case in site is Gambella Region, which shows the biggest GPI drop across different education cycles,

[9] UN Women and EC (2014), Preliminary Gender Profile of Ethiopia,

ranging 0.80 for grades 9-10 to 0.33 for grades 11-12.[10] Lower completion rates of females along with lower performance in Grade 10 national examination, and limited representation in higher education and certain fields of technology and science is among the challenges in the education sector.[11]

Pertaining to health status, according to WHO, life expectancy at birth for males and females respectively in Ethiopia was 67 and 63 in 2015.[12] National level data for other indicators such as maternal mortality rate, HIV prevalence and access to contraceptives, national level data show that high maternal mortality rate, poor nutritional status of women and gaps in knowledge about HIV mother to child transmission still pose a challenge in Ethiopia.[13] However, a steady decline has been observed in the maternal mortality ratio from 871 deaths per 100,000 live births in the 2000, to 676 deaths in the 2011 EDHS, to the 412 deaths per 100,000 live births in the 2016 EDHS.[14] The 2016 EDHS findings further indicate that infant mortality has shown a decline from 97 deaths per 1,000 live births in 2000, to 77 deaths per 1,000 live births in 2005, to 48 deaths per 1,000 live births in 2016.[15]

One of the factors for gender gaps in employment and wages is the fact that women spend more time in the informal sector, on activities that require less skill and training. National figures show that female unemployment rates were significantly higher than that of men in Ethiopia the years from 2005 and 2013. Little improvement was noted in the employment rates of women as compared to men. Data indicates that male employment in 2005 was 84.7 percent, and 82.7 percent in 2013; as compared to women's employment, which stood at 69.0 percent and 69.8 percent respectively in the given timeframe.[16]

Such gender gaps across Ethiopia and in the target areas are caused by gender related norms and perceptions that have continued to limit women's participation and benefit from different resources, as detailed in the subsequent sections.

It is also imperative to recognize the colossal impact gender equality and women's participation could bring in sustainable land management, and the climate, forest, water, energy and land tenure targets of RLLP, if it strategically addressed through the program components. The project contributes to furthering the objectives of the Ministry of Agriculture's gender strategy by removing barriers to women's ownership and control of assets and improving voice and agency. In particular, strengthening accountability in

[10] FDRE, EMIS and ICT Directorate, Ministry of Education (2017), Education Statistics Annual Abstract 2008 E.C (2015.2016)
[11] UN Women and EC (2014), Preliminary Gender Profile of Ethiopia
[12] http://www.who.int/countries/eth/en/ Accessed on May 21, 2018
[13] UN Women and EC (2014), Preliminary Gender Profile of Ethiopia
[14] FDRE CSA (2016) Ethiopian Demographic and Health Survey of 2016
[15] ibid
[16] UN Women and EC (2014), Preliminary Gender Profile of Ethiopia

institutions and systems; strengthening capacity to deliver gender-sensitive services; increasing economic empowerment for women; ensuring better voice and agency, and improving coordination and intersectoral linkages.

2. Study Objectives

The objective of this assignment is to undertake a gender assessment and analyze implementation practices and lessons of SLMP 2 for the successful implementation and design of RLLP's gender approach. The specific objectives are to:

- Identify the gender-based constraints to equitable participation and access of men and women to programs and services across RLLP project objectives.
- Assess the existing key gender related national policies and programs to identify opportunities for collaboration and mutual strengthening of gender approach in RLLP
- Identify the most important gender gaps and strategies to address and support Gender equality and women's empowerment for maximizing achievement of RLLP's program goals and objectives.
- Provide operational recommendations for ensuring gender dimensions are captured in all the RLLP components;
- Develop training plans for project staff, to increase capacity and ownership for successful gender-equitable implementation;
- Develop monitoring plan for key gender considerations for each project activity, to assist with the team's implementation and future gender monitoring.
- Identify the key recommended strategies for RLLP and its implementing partners to bring forward an effective gender-responsive program for promoting resilient landscape, livelihoods and gender equality.

3. Methodology

A. **Desk Review:** Review of relevant documents was undertaken to identify opportunities and gaps in implementation mechanisms. This entails reviewing background information from previous monitoring visits by MoANR PSU and the periodic reports submitted by the Regional Bureaus of Agriculture and Natural Resources; and project strategy documents, implementation manual and gender mainstreaming guideline of SLMP.

B. **Key informant interviews (KIIs)** were carried out with knowledgeable informants in some of the sample watersheds, including community members such as Kebele and community watershed team members, implementers such as Development Agents in the Bureaus of Agriculture and Natural Resources and Woreda Technical and steering committee members. The purpose of the key informant interviews is to triangulate information from the focus group discussions with community groups and explore key research issues such as women and men's participation SLMP II program components and decision-making roles, strengths and gaps in the implementation mechanisms, along with actions needed to address those gaps.

C. **Focus group discussions**: were relevant in helping to identify the status, roles and decision-making power of women and men in different stages of the project. The consultant utilized FGDs to explore division of labour, access and control over resources and benefits from SLMP-II, influencing factors for women's participation, challenges and opportunities in implementation mechanisms. In the newly selected watershed areas, the purpose of the focus group discussions was to identify existing gender dynamics or power relations, perceptions and stereotypes related to gender and identify how that can impact the project outcomes. In addition, it was used to identify priorities and needs of women and men to assist in the design of the gender action plan.

The following list of tools was applied with female and male SLMP-II clients, community representatives, and implementers in the selected Watersheds and Kebeles.

Table 1: Size of the study sample

Region	List of Watershed/ Kebele	Methods	
		KII with	FGD with
Amhara	Basoliben (Dendegeb Zema Teje)	- Female and male representatives from the community - Relevant Woreda and Kebele government offices, grassroots implementers	10 women and 12 men
	Enebse Sarmeder (Enjerer Kebele)		9 women, 11 men
Benishangul Gumuz	Homesha (Gumu Kebele)		8 women, 8 men
	Bambasi (Kebele 41)		10 women, 10 men
Gambella	Abobo (Tegni Kebele)		8 women, 8 men
	Itang (Bazel kebele)		14 women, 10 men
Oromia	Fiche/ Kuyu		8 women, 10 men
	Kersa		14 women, 14 men
SNNP	Hossana (Gembora kebele)		8 women, 10 men
	Gumer Woreda (Be'ad Kebele)		7 women, 12 men
Tigray	Kolla Tembien (Merere kebele)		10 women, 11 men
	Tanqa Abergele		12 women, 12 men
Total		43 key informants	24 FGDs (118 women and 128 men)

4. Analysis of Findings

4.1. Gender issues at household and community levels

4.1.1. Gender relations and norms

Gender relations are the ways in which a society defines rights, responsibilities and the identities of men and women in relation to one another.[17]

With the purpose of analyzing factors that influence women and men's participation and benefit from the program components, the study explored gender related norms in the target areas. In areas like Gambella and Benishangul Gumuz, harmful traditional practices hamper women's access to resources, decision-making power and capacity to adapt to climate change. Harmful traditional practices including polygamy, marriage through inheritance[18] and gift marriage[19] exist even though it is punishable by law. Capacity gaps of law enforcing organs, deep-rooted beliefs of the community and members of the law enforcing body are cited as major challenges in addressing this problem. A key informant from Gambella Regional Women and Children's Affairs Bureau stated that women in Gambella are considered as property since they bring in dowry to their father. Women in this area also noted that they have limited decision-making power, because they do not have their own property. Whenever a woman wants a divorce, she should bring back her dowry, and leave her children with the father. Given this, women enjoy limited decision making, if any, pertaining to property and other important development issues. It is however, encouraging that the tradition of polygamy is gradually changing in other regions like Hossana (SNNP) since it became illegal, and due to the changes in community attitude, and widespread religious teachings on the issue.

The study found out that women and children are the most affected by hunger and malnutrition, due to the deep ingrained patriarchy in some of the communities.[20] For example, women in Kuyu (Oromia Region) give priority to men when serving food followed by children. Women usually have very little to eat and are the most affected whenever there is climate change and food shortage. In Amhara region, community members pointed out that they work the whole day, and can eat only twice a day, given food shortages and their dependence on rain fed agriculture. In other parts of the country, women usually suffer because of food shortages and climate change more than men, since men migrate in search of other resources during drought seasons.

[17] http://www.fao.org/gender/gender-home/gender-why/why-gender/en/

[18] Wife inheritance means the practice of inheriting someone's wife. For example, a son may inherit his father's or his brother's wife, or even his stepmother, to keep the family property intact.

[19] Gift marriage means giving one's wife as a gift to another person, be it a relative or a friend.

[20] FGDs with women groups and different regions, and KII Gambella Itang Woreda Focal person

In the case of Hossana (SNNP), lack of resources has put pressure on women to migrate to Middle East, and young men to South Africa in search of employment. Young females in the area are required to support their families and many have wed much older men living abroad, in the efforts to go abroad or bring in some money for their family.[21]

In the urban areas of Gambella, the burden of generating income for the household is putting young girls into commercial sex work, according to key informant from the Regional Bureau of Women and Children's Affairs. In addition, the high prevalence of HIV in the area is one of the emerging challenges in the health status of young people. Unpublished report[22] on Most at Risk Populations (MARPs) of Gambella from GTZ/GIZ showed that highest zonal prevalence rate of HIV is noted especially in Majang Zone at 13.6%, Anuywak Zone at 9.7% and Itang Special Woreda at 4.6%. Key informants from relevant bureaus in Gambella[23], also stressed that this has posed a challenge in sustainable development work and other productive activities since it affects the active working age group. Site specific HIV prevalence on some locations in SLM locations in Majang Zone indicate that there is a very high HIV prevalence in some Kebeles like Gonchi Kebele which exhibited a prevalence of 28.57%. This prevalence is attributed to lack of sufficient awareness activities, existence of harmful traditional practices that promote unsafe sex, and poverty that has increased pressure on young women to engage in commercial sex work. This could also affect the labor contribution to SLMP-II and forthcoming RLLP in these areas.

In general, the study revealed that lack of sufficient infrastructure and services along with harmful traditional practices and perception continue to constrain women's access to livelihood options, information and resources more than men, thereby constraining their capacity to adapt to climate change.

FGD with women in Abobo (Gambella)

FGD with women in Benishangul Gumuz

[21] Female FGD participants in Hossana

[22] Unpublished Assessment Paper, "Most at Risk Populations (MARPs) of Gambella- SLMP Communities by HIV Epidemic, by Leake Gebrelibanos GIZ-SLM, Institutional Development Advisor

[23] KII with Gambella Regional SLMP Coordinator and Gambella Regional Women and Children's Affairs Bureau, Gender Mainstreaming Core Process owner

4.1.2. Patterns of Gendered division of labor

Under this section, patterns of gender division of labor, or women and men's role in productive, reproductive and community development work and SLMP-II are discussed.

A. Reproductive Roles

Women, in all the six regions are mostly responsible for household chores and reproductive roles such as taking care of children, cleaning, cooking, taking care of the elderly and sick etc, while men have very limited role, if any. In some areas, there is positive change towards increased male participation in some chores such as bringing firewood from long distances, and fetching water on donkey back. Focus group discussions with women in different sites, especially in Amhara Region (Debre Markos, Basoliben Woreda) revealed women's triple work burden because of their domestic, productive and community management roles. Elsewhere in the study sites (Gambella, Benishangul, SNNP, and Kuyu in Oromia) women voiced similar complaints about their work burden and lack of sufficient time to engage in project activities, which they think could help them generate income. However, in some areas such as Kolla Tembien (Tigray) and Basoliben (Amhara), men have some level of engagement in household chores.

Pertaining to changes in men's roles, FGD participants in Hossana (SNNP) said[24], "The attitude towards what women should and should not do is improving. In the past there were men who used to sit idle, while their pregnant wife cuts/collects fuel wood. But nowadays, some men help by fetching water, even though there are many who still regard that as women's job." Similarly, men have started participating in some cooking activities (Basoliben- Amhara Region and Kolla Tembien- Tigray), which is a major shift. However, these are unique cases, and in most of the communities visited women continue to shoulder the bulk of reproductive activities. They work late into the night, and as they noted, with limited light/energy source. The workload of women is expressed by a female focus group discussant in Hossana,

> We work equally with men. We have our vegetable gardens and we also engage in farming. Our task includes tilling and weeding. We work in collaboration with men. We also do most of the household chores such as taking care of children, cooking and going to the market. Some husbands help by fetching water. Men's support in household chores is very limited. Women walk for an hour and half, carrying water containers. We go there twice or three times in a day. A person who does not own a donkey goes there twice. Finding firewood is also difficult.

[24] FGD in Hossana (SNNP)

> Women travel as long as two hours in search of fuel wood. In general, women always wake up at 6:00 AM in the morning everyday and sleep around 10:00 PM, spending much of their time working.

In some areas such as Basoliben Dendegeb Woreda (Amhara Region), women are responsible for taking cattle to water points, and have to make that travel two or three times in a day.

It is therefore imperative to give priority to strategies that reduce the workload of women, such as promotion of fuel saving stoves, water pumps, wells, solar light and climate sensitive solar powered mills, among others while enhancing women's participation in sustainable land management practices and income generating activities that reduce the burden on the environment. As literature shows, "an immediate starting point for gender equality would be a more equitable sharing of the daily household workload between men and women, and girls and boys… Equality could also be fostered by providing women and girls with appropriate technology that could reduce their work burden. For instance, providing women with renewable energy and running tap water for household use."[25]

FGD with men in Hossana (SNNP)

FGD with women in Enbse Sar Meder (Amhara Region)

B. Productive Roles

Women and men in rural Ethiopia are responsible for day-to-day farming activities, animal rearing and some off-farm activities such as trading. Women engage in almost all farming activities except plowing, because of restricting customs.

Women in Gambella (Itang) and Benishangul Gumuz engage in cultivation and sale of fruits and vegetables, chicken; while those in Amhara Region (Enebse Sar Meder) produce teff, wheat, beans and other vegetables and fruits such as banana, coffee and oranges. Men in

[25] Samandari, Atieno Mboya (2017), Gender Responsive Land Degradation Neutrality, United Nations Convention to Combat Desertification

most of the target areas are also responsible for selling goats, sheep and big livestock animals such as oxen.

Men in Hossana (SNNP) and Benishangul Gumuz stated that women lack sufficient numeracy skills to engage in large scale trading activities, and how big livestock are difficult for management. Women on the other hand noted that their challenge stems from the need to travel long distances to sell big livestock. However, the need to travel long distances has not posed a problem to women in Kersa (Oromia) who have the biggest household role in taking produce to other towns. Men's attitude about women's capacity and women's self-confidence is the major factors limiting their role and engagement in marketing activities. Such roles would have equipped women with improved capacity, decision making and bargaining power.

Focus group discussions also revealed that married women and female heads of households have time constraints, while young single females indicated that they have the time and high interest to engage in different components of the sustainable land management project. Therefore, efforts to enhance women's participation should focus on identifying and targeting female youth through both public work and IGA activities.

C. SLMP-II Activities

Participation of women and men in SLMP activities such as building terraces, water harvesting, check dams and small reservoirs, establishment of grazing corridors etc indicate that women in almost all the target sites are active participants through labour contributions and will benefit directly from the program interventions. Given that registration of households is done under the name of the husband, some of the data from the regions seemed to indicate limited participation of women. However, in some of the areas wives spend more time than their husband in SLMP-II related labour contribution work. Grassroots implementers in Benishangul Gumuz and Gambella, as well as the women groups noted that women's role in SLMP-II labour contribution is more pronounced than that of men in some of the kebeles. However, reports indicate lower participation and benefit of women in other sub-components such as trainings on coffee planting, spices planting, improved vegetable and potato production, NRM bylaw setting etc. Given their high engagement in labour contribution, women should also get equal opportunities to benefit from different training activities and decision-making processes.

Women in Kersa (Oromia) on their development sites

Discussions with women in the six regions indicated that most are appreciative of their engagement in SLMP-II, and the income they can generate, but have complaints about work burden. The work norms across the regions showed variation. For example, SLMP-II activities are undertaken from 7:00 am- 12:00 and then from 3:00pm to 6:00pm in Abobo (Gambella); while in Wolkite (SNNP) people are paid according to the task they have accomplished. Women in Abobo stated the need to change the work schedule or engage them only during the mornings given the afternoon heat, and their additional household responsibilities.

Some initiatives are taken by grassroots implementers to reduce the workload of women through allocating most arduous jobs such as digging holes to men, while engaging women in less straining activities such as shoveling the soil. Allocating of activities deemed as "light work" is important in reducing the burden on women. Therefore, project implementation manuals should define "light work" in the context of the project activities, and make provisions accordingly. For example, in the context of Productive Safety Net Program of Ethiopia, "Light work" includes activities that require less strenuous engagement, such as planting of seedlings, weeding, watering and stone collection. However, the definition of light work could be context specific as some activities like stone collection and watering could be difficult in areas where these are not easily accessible. Definition of light work could be undertaken in each specific site, together with the community team leaders and community watershed committee members, using the above activities as a guide.

4.1.3. Access to and control over resources

This study reveals that women have limited access to and control over resources compared to men in almost all the target areas, except Kersa (Oromia Region). Though, there has been some change in women's level of access and control over resources such as cash, due to their engagement in SLMP-II, their control is mostly limited to small productive assets, such as sheep, goats, chicken, vegetables and fruits. Men on the other hand control on cattle, such as oxen and cows.

In some of the target areas like Abobo in Gambella, both women and men have limited access to resources and especially, to market because of lack of appropriate infrastructure such as roads and transportation. However, men have higher mobility than women, and travel more than 10 kilometers to access market transactions. On the other hand, women affirmed that the program has enhanced their access to and control over resources.

In exploring access to and control over small cash earnings from SLMP-II, women in all the six regions visited noted how that has improved their decision-making power in the household, their capacity to contribute to the household income and in general, change perceptions about women's capacity and roles in the household. However, the fact that men are still responsible for sale and management of large livestock in most of the regions, with the exception of Kersa (Oromia) and women's limited awareness about selling prices, continues to limit their access to and control over resources. As women in Amhara Region (Basoliben Dendegeb Woreda) stated,

> *We now have more involvement in rearing chickens and growing fruit trees. It is preferable for the project to focus in these areas. Women mostly do these activities. We herd our sheep and look after them; but men do not participate in this sector. Women take chicken, eggs and other small items to the market, while men take crop and cattle.*

Cattle ownership is especially in the hands of men in almost all the target sites, and especially in areas such as Gambella, where polygamy is practiced, and men give dowry in the form of cattle to the woman's family. As men in Gambella (Itang) stated,

> *Men's role is herding. We take our cattle to the forest, but women participate in milking them and distributing milk. Cattle is owned and managed by the husband, and milk is given out equally for each wife. So, the man mainly makes decision.*

In areas where there is crop shortage, women and men decide together on how much they need for the household and how much should be sold. In areas like Kuyu (Oromia), women are responsible for taking the surplus product to the market. However, it was also noted

that the surplus is very little and can only generate enough cash to purchase other edibles such as cooking oil, other types of grain and household consumables.

Pertaining to ownership and control of land, the study reveals that second level land certification has been started in some of the target areas, while it is not yet started in others. While certificates affirming joint ownership will contribute towards increasing women's access to and control over land, further measures are needed to ensure women's benefit from land resources. These measures include ensuring equal participation of women in trainings opportunities that will enable them to utilize their land resources effectively. Among the already started initiatives that should target more women in some of the target areas are found trainings on improved vegetable production, potato production, spices planting, coffee planting and bee keeping.

Females across all parts of the six regions do not engage in plough cultivation because of the social norms that prohibit women from plowing using oxen. Because of this, divorced and widowed women are forced to resort to engage in share cropping if they do not have older male children, apart from Kersa (Oromia). In Kersa, the community tills a widowed woman's land without expecting any form of payment.

As women in Enebse Sar Meder (Amhara Region) stated,

> If a woman is a widow, she would have difficulty covering the cost of household consumables. This is a common problem for all widows. We are trying to live through what we get from our neighbors. If a widowed woman has land and older children, they will help her with farming. Otherwise another farmer would farm on her land, and share the produce with her. This division of benefits makes the woman even poorer.

In many of the target sites, women have lower access to information and trainings as compared to men. Men in Enebse Sar Meder (Amhara Region) for example noted that they would like to see more engagement of women in SLMP related trainings because they can assist them if they have improved knowledge about proper farming practices. Women focus group discussants in this area also stated that other women in the community are disinterested in trainings and consider meetings a waste of time, indicating the need to devise different strategies such as home visits, provision of cook stoves, solar panels etc to boost women's attendance.

4.2. Gender issues in planning and implementation of the project

4.2.1. Planning and implementation mechanisms

In order to ensure equal benefits and participation of women and men, a gender sensitive

planning process that considers the needs and priorities of women and men is crucial. One of the principles of watershed development is gender sensitivity, according to the Community Based Watershed Management Guideline of 2005.[26] The guideline states that women are most affected by environment stress and thereby need to equally participate in planning, implementation and management.

The SLMP-II PIM also guides implementers on the first step in planning, which is to prepare a community watershed development plan, facilitated by the Regional SLMP coordinator, M&E and watershed specialists. Preparation of multi-year micro-watershed development plan is undertaken during the first year of SLMP-II, according to the PIM. The PIM outlines that capacity building, land administration and certification activities should be planned at Woreda levels through the engagement of Woreda agriculture experts, land administration experts, and surveyors along with community watershed teams (CWTs).

At the woreda level, "The annual work plan and budget preparation is done based on the annual micro watershed plans submitted from the kebeles under the Woreda's jurisdiction, activity plan submitted from the Woreda Land Administration and Registration Office as well as activity plan submitted from other line offices."

The community based watershed management guideline emphasized that equal participation for women and vulnerable groups should be ensured especially in planning, wage and employment opportunities. On the other hand, regarding SLMP-II management, it was noted how women will be empowered to engage in every process, starting from project identification to implementation, monitoring and evaluation phases and decision-making structures with at least 30% representation.

Among the positive measures taken to ensure women and men's equal access to benefits is also found in the development of a Gender Mainstreaming Guideline during SLMP-II, which identified key gender issues and guidelines on how to address those. While the Gender Mainstreaming guideline has been prepared to serve as a guide for implementers, partners and the community, regular supervision and monitoring is required to ensure that implementation is progressing along the guidelines. To ensure proper implementation, it is imperative to assign Regional level Gender focal persons who could take key roles in supervising and ensuring implementation of the gender mainstreaming guideline. The Gender focal persons will engage in building the capacity of grassroots implementers and preparing regular quarterly reports on the implementation progress, along with identified gaps, challenges and potential mitigation measures.

[26] Lakew Desta, Carucci, V., Asrat Wendem-Ageňehu and Yitayew Abebe (eds). 2005. Community Based Participatory Watershed Development: A Guideline. Ministry of Agriculture and Rural Development, Addis Ababa, Ethiopia

As article 35 (6) of the constitution puts, “Women have the right to full consultation in the formulation of national development policies, the designing and execution of projects, and particularly in the case of projects affecting the interests of women.” Therefore, given that women constitute 50% of the population and rightfully need to engage fully in decisions affecting their labour, time, and practical and strategic needs and land use, it is imperative to ensure their 50% participation in all phases of the project cycle. In doing so, the project can empower and capacitate more women to come into leadership and decision-making positions, thereby addressing not only practical needs of women, but also strategic needs in the long run.

With regard to creation of a gender balanced Community Watershed Team (CWT), the Community Based Watershed Management guideline proposed two methods; i.e either setting two CWT with separate male and female composition or establishing one CWT with a gender balanced mix of male and female members, depending on the regional context. Pertaining to this, data collected at the regional level indicated that the CWT in the selected areas are composed of a mix of male and female members, though female representation is lower than males’. The proposal by the Community Based Watershed Management guideline for equal participation of women and men, if implemented, has its benefits in capacitating women to engage in leadership positions together with male community groups, and in bridging the gender gap in decision-making structures.

Mid term assessment report of SLMP_II also appreciates the fact that 25% of the direct beneficiaries are female-headed households, while females in male-headed households also directly or indirectly participate in the project activities. However, the fact that women in decision making in SLMP-II coordination platforms stood at 18.34% in 2016, indicates a gap in achieving the 30% quota for female representation in decision making roles. This study also explored the composition and functioning of committees at different levels, and affirms that female representation in community level watershed committees on average stands less than 30% in most of the visited sites, except some sites in Oromia.

The 30% quota allocated for females’ leadership should be revised to bring a gender-balanced representation in leadership positions. Among the visited sites 50% female representation in CWT is found only in Kersa (Oromia Region). In this area, women are highly active in meetings, trainings and even in SLMP-II work compared to men. In addition, they are responsible for large scale trading activities and have more mobility compared to women in other regions. Rather than sticking to the minimum 30% quota set in the plan, implementers in this area took a right measure in allocating 50% representation of women in different leadership positions. This can be taken as one of the best practices to guide the planning and implementation of RLLP in the other regions.

With regards to whether the needs of different vulnerable groups, such as girls, women and men with disabilities and the elderly are taken into consideration, the study finds out that the planning process has taken this into consideration. This was observed in the types of services provided for 'female headed households', 'disabled community members', 'jobless youth' and 'landless households'. Female-headed households, who are mostly widows, are one of the direct beneficiaries. The SLMP-II took into consideration the needs and vulnerabilities of these groups to adapt to climate change; and thereby planned for income generating activities and climate smart agriculture. Measures to enhance women's income through IGAs, and remuneration given for some labour contribution has contributed towards changing perceptions about women's capacity, role and promoted positive gender relations in many of the areas visited.

4.2.2. Accessibility of services and technologies to women and men

Literature indicates that, "the imbalance in rural gender roles, where men hold decision-making and ownership rights of the family's primary asset (i.e., land), makes land tenure a key element in the struggle for rural gender equality... Therefore, laws and policies aiming to achieve land degradation neutrality and land restoration should not only be gender-responsive but should also mandate the movement of rural societies away from male domination of land ownership rights towards equally balanced rights." [27]

Among one of the sub-components of the SLMP-II and proposed RLLP are found measures to improve land tenure security of rural households and groups through land certification and registration. Studies undertaken on this issue indicate that major strides have been undertaken across different regions of the country in provision of First and Second Level Landholding Certificates. Previous studies indicate how the inclusion of women's names in the land certificates has been instrumental in improving women's bargaining power and status.[28]

Land holding certification activities are aligned to one of the core objectives of Ethiopian Women's Development Package, which has set to ensure women and men's equal land use right and certification, and ensure maximum utilization of women's land. The Development Package also outlines that women's labour should be properly utilized and women headed households should maximize their labour on land to reap its benefits.

The process of issuing geo-referenced map-base land holding certificates, in the names of both landowners in the case of married people, has been started and completed in some of

[27] Samandari, Atieno Mboya (2017), Gender Responsive Land Degradation Neutrality, United Nations Convention to Combat Desertification

[28] *Colloque international "Les frontières de la question foncière – At the frontier of land issues", Montpellier, 2006*

sites visited, while it is still in its early stage in the others. Sex- disaggregated data on First Level Land Certification indicates that in Amhara Region 52% of land holdings were registered in the name of spouses, 27% in women and 21% in men. In the case of Oromia, of those who received their first level land holding certification, 54% were registered in the name of spouses, 16 % in women and 30 % in men's names. Similarly, in SNNP, 51% of land holding certificates were registered in the name of spouses, 12 % in women and 37 % in men. The data for Tigray Region showed that out of the registered landholders, 13 % are registered in women's names, 68 % in both spouses and 19% in men's name.[29]

This study reveals that the land holding certification of polygamous households has posed some challenges and is not uniform across the regions where polygamy is practiced. In some areas, the first wife will be registered together with the husband, and the remaining will be certified in their own names. In others, the land will be divided among the wives and the husband will be registered separately with all the wives. Another practice, when there is a small plot of land, is to put the names and pictures of the husband and all wives in one certificate. As indicated from key informants, the best legal measure is to divide the plots equally among all spouses, and prepare separate certificates for each wife together with the husband.

Women and men in all the target areas noted that they have been benefitting from the program interventions. In their words,

- "We have taken chickens. It has been three months since I have taken chickens and I am getting income. They are immensely effective. I am profiting from selling eggs."[30]
- "I have personally taken training on how to make fuel saving stoves. I can train others on how to do it. It has many benefits including protection of women's eyes and health from smoke." [31]
- "There are development activities such as small-scale irrigation, poultry production and rearing of sheep. Growing grass is beneficial. Every person sold grass, and received 2,000 Ethiopian Birr in the recent past."[32]
- "Women were given two sheep each. There are some who have gotten five chickens, and some who have gotten 10-12 chickens. Women are benefitting from this program. This project has brought so much change to this area, that we do not even recognize this place. Our wish is to see this project expand."[33]

[29] Land Governance Assessment Framework Implementation in Ethiopia: Final Country Report, January 2016, Prepared Zerfu Hailu (PhD) with Contributions from Expert Investigators
[30] Women in Basoliben Dendegeb
[31] Women in Basoliben Dendegeb
[32] Men in Basoliben Dendegeb
[33] Men in Basoliben Dendegeb

- "This project has given sheep for eleven people in this area- five cows and one ox for two individuals; and the rest were given one ox each. And within two years more than twenty women were given twenty chickens in one round; and twenty-three chickens in another round."[34]

Men and women in the target areas stated that they have no grievance on women and men's access; and emphasized their hope for the engagement of more people from their communities. Given the scope of the problem and the impact achieved, the initiatives started should be multiplied, strengthened and equitably distributed/shared to enhance the program coverage of households in the targeted Regions.

It is essential to ensure women have access to grievance mechanism, that information regarding what constitutes a grievance is shared widely in the public domain, such as that individuals can register grievances effectively. Individuals must be provided with multiple platforms (for instance, boxes located in neutral space such as a school or in the primary health center, in which women can drop their written grievance, telephone numbers on which they can call and state their grievance orally, etc.) through which they can register their grievance so that they do not get constrained in their attempt of registering their grievances'. The project will allocate resources for awareness creation on this GBV GRM. The Woreda Women and Children Affairs Office will be provided with capacity building and orientation on the basic principles of GBV. The office will have a working procedure regarding the standards for services. Moreover awareness raising and capacity building will be provided for Traditional /indigenous institutions and they will teach and advise the community, so far we do not have any record regarding GBV related to project The project will continuously consult with the Ministry of Women and Children Affairs to ensure best practices to raise gender-based violence awareness and effective prevention and response mechanisms.

4.2.3. Implementation Capacity

A. Capacity for successful gender-equitable implementation

Previous assessments on SLMP-II indicate that capacity building trainings have been undertaken at different levels on gender mainstreaming, among other environmental, social safeguards, IGA and business development trainings. Most of the interviewed Woreda focal persons across the six regions noted that they had received gender related trainings through SLMP-II, along with other trainings. While Woreda level focal persons professed improved knowledge and skills on the concepts of gender in relation to SLMP-II, most of the

[34] Men in Enesbse Sar Meder

grassroots implementers or Development Agents (DAs) stated that they had little opportunity or exposure to gender related trainings.

Conversely, in some areas, it was encouraging to note that the Woreda focal persons have taken the initiative to train the DAs as well as some community members, while in many, this activity needs to be strengthened. Most of the grassroots implementers, i.e. development agents, in general stated they have limited knowledge on how to mainstream or integrate gender in their everyday work. In some of the areas, the fact that there is high staff turnover is also mentioned as a challenge, indicating the need for conducting continuous refresher trainings.

As the SLMP-II PIM indicates, training is planned to be directed through the regional coordination offices, through provision of manuals, training and learning materials, experience sharing visits, on different themes, among which are found gender, HIV/AIDs and family planning. The PIM further outlines that "print media like manual, magazine, sign posts, broachers, leaflets, posters, and newsletters" will be used for theoretical trainings. Interviews undertaken at different levels with grassroots implementers indicated that the gender mainstreaming guideline has been properly disseminated, along with a gender training for the focal persons, while there are gaps in availing leaflets, brochures, posters etc in local languages, which could be instrumental in guiding the work of grassroots development agents during community awareness building work.

In some of the target areas, it was noted that gender training is sometimes pushed back whenever there is budget constraint. This indicates the need to increased capacity of grassroots implementers on how to mainstream or integrate gender into other SLMP-II trainings, rather than giving it as stand-alone training. Among the proposed training schemes are found the following:

- Gender and gender mainstreaming concepts
- Overview of gender issues (including gender-based violence), provisions and gender sensitive approaches under RLLP
- Gender considerations in different stages of RLLP (including gender-based violence prevention and mitigation measures)
- Roles and responsibilities of different stakeholders/ implementers in mainstreaming gender
- Gender disaggregated data in planning and reporting mechanisms
- Gender analysis tools

B. Reporting

Gender is given attention in planning, implementation and monitoring and evaluation of the project, given that one of the four SLMP-II performance monitoring indicators gives emphasis to identifying "total number of land users (households) adopting sustainable and climate smart/resilient land management practices on individual lands disaggregated by gender." [35] The importance of a gender disaggregated information under different components, such as number of land users that are trained, number of key service providers trained was stressed in the PIM.

Review of the regional reports showed that disaggregated data is available on landless male headed households, female headed households who received different services, women and men who engaged in labour contributions, etc. However, jobless youth who engaged in different activities, self help groups and IGA are not disaggregated by sex. Thus, consistent use of gender-disaggregated data should be applied throughout the reports, and supervised. The number of female and male beneficiaries directly engaged should be presented to provide a disaggregated figure of for example, jobless youth (F/M), Self Help group members (F/M), and those engaged in IGA (F/M). In this regard, the engagement of a Gender Focal person at each regional level in the forthcoming RLLP can ensure continuous identification and integration of gender issues, proper reporting, supervision and guidance to grassroots implementers.

4.3. Institutional mechanisms for coordination

The PIM indicates that implementation of SLMP-II will be undertaken by the Ministry of Agriculture and Natural Resources overseen by "National SLM Committee… comprising of the National Sustainable Land Management Project Steering Committee (NSLMPSC), who are composed of high level representation from relevant ministries; the National Sustainable Land Management Project Technical Committee (NSLMPTC) comprising of senior technical staff from different relevant ministries and public and private agencies and institutions, and the National Sustainable Land Management Project Support Unit (NSLMPSU) in MoANR to provide administrative and technical support to the steering and technical committees." The National Sustainable Land Management Project Steering Committee meet twice a year to provide policy guidance and overall supervision. The National Sustainable Land Management Project Technical Committee will meet once every quarter to provide technical advice on the quality of implementation performance reports

[35] Project Implementation Manual For Sustainable Land Management Project (SLMP) 2014-2018

and special studies, and assist in documentation of best practices. The National Sustainable Land Management Project Support Unit is composed of specialists and other staff who are responsible for the day-to-day implementation of the program. They are responsible for monitoring the overall implementation and preparing progress reports. There is also the Regional SLMP Steering Committee who are composed of different stakeholder government bureaus to provide guidance to the program, review and approve annual plans and budgets of the regions, and monitor and evaluate the progress.

This institutional mechanism for coordination, monitoring and evaluation of the program on gender related issues is well structured but needs to be strengthened. Especially at the regional level, frequent staff turnover was mentioned as a challenge in some of the regions visited. In relation to gender issues, the engagement of Women's national machineries such as Women and Children's Affairs offices is highly relevant in identifying the priorities and needs of women in the target communities to ensure proper and inclusive planning. In this regard, the study appreciated the engagement of Women's affairs bureaus at the regional, Woreda and even kebele levels, except of some areas where staff turnover was noted as a major challenge. Women's affairs bureaus also participate in creating awareness among the SLMP-II beneficiaries, together with SLMP-II grassroots implementers.

Another form of support provided from the Federal level is, the gender related capacity building activities to Woreda level staffs, which were appreciated by the trainees. Woreda level staffs in some of the regions have trained grassroots implementers such as Development Agents on gender issues, while in other areas the Woreda focal persons have gone down to the community and given the trainings themselves.

While the technical support and backstopping from the Federal Ministry on gender related issues and gender mainstreaming has been appreciated by Woreda and Regional level implementers, absence of regular staff assigned to work on gender issues at the Regional levels was noted as a challenge in some of the regions. Given this gap, implementers noted that training on gender provisions of the PIM, gender-mainstreaming strategies and collection and use of gender-disaggregated data should be given regularly.

The collection and analysis of gender-disaggregated data is highly instrumental in understanding gender dynamics and incorporating mitigation measures. One of the roles of the National Sustainable Land Management Project Technical Committee in this regard is to ensure the proper collection and use of gender disaggregated data to guide the implementation process. Discussions undertaken at different levels (Woreda and Regions) indicate that women's participation could have been curtailed in the periodic reports, since households are registered in the name of the man, and only in the name of the woman if she is the head of the household.

4.4. Impact of the SLMP-2 program on gender relations

According to discussions undertaken with community groups in the six target regions, SLMP-II has been effective in changing some gender related norms and perceptions about women and men. Below is a list of current impacts on gender issues.

Positive influence on gender norms and perceptions about women

- Income generation through SLMP-II has been appreciated by women who pointed out that they have gained more respect from community members because of their increased self-reliance. Women participating in SLMP-II recommended enhanced engagement of other women from the communities to ensure a wider impact.
- The form on stipend beneficiaries get for some of their labour contributions has been instrumental as additional income for their families. Women said, this income has also been instrumental in changing community perception about the capacity of women to support their families beyond their productive and reproductive role that have not been recognized. Men noted how appreciative they have become of women's engagement and access to cash as well as the profit gained from income generating activities, as it benefits the whole family. IGA activities undertaken by women have been more successful compared to those undertaken with men, according to grassroots implementers.

Impact in building women's self-confidence

- There are changes in attitude about women's roles and capacity, according to key informants and community members. Women have started to feel more confidence and motivated to engage in IGAs and climate smart agriculture. As a grassroots implementer stated, "women used to be shy to speak out during meetings. Gradually, they started to gain confidence. It has improved even more, once they started to generate income. In addition, couples have started discussing and making decisions together on sale of assets and such important issues", thus indicating that the program has not only changed perceptions about women, but has also empowered them for improved decision-making roles in the households in managing assets and resources.
- Women in different parts of the country affirmed the above statement. In Abobo (Gambella), women said: "we are able to save money from selling of fruits and vegetables and from selling fuel saving stoves. This has improved our self confidence." Similarly, women in Wolkite (SNNP) stated, "We have produced potato, and barley for our family consumption and for sale. It has given us more confidence

and moral support. We do not need to be employed somewhere else, because we are generating our own income and engaged in productive activities."

Changes in division of labour

- There have been changes in the gendered division of labour due to the awareness raising programs. As women in Basoliben Dendegeb (Amhara Region) stated: "Some young men cook food, wash clothes and help women in their other household chores. Men's opinion about women has also improved." Similar claims were made by women in Tanqa Abergele and Kolla Tembien (Tigray).
- Women have also started to engage in various activities that used to be considered as men's. For example, there are female Forman's who supervise construction related activities in Kersa (Oromia Region), though in some of the other regions women do not engage as much in activities requiring construction skills. The case of Kersa (Oromia Region) has been outstanding in various aspects and should be taken as a best practice for experience sharing.
- Distribution and adoption of cookstoves (63,128) led to reduction women's workload and time burden for women and girls collecting fuelwood (and reduced indoor air pollution). [36]
- Provision of childcare: To alleviate some of the burdens of housework and to ensure women are actively participating in training and capacity building activities, increased access to provision of childcare and behavior interventions regarding social norms around men's contribution to household chores have proven to effective. Consultation with Central Statistic Agency amongst other agencies are recommended be done periodically to ensure innovative capacity building activities take in national data regarding how women and men spend their time.

Enhanced access to and control over resources

- There are good directions towards inclusion of both women and men in services that will enhance their access to services and benefits. Because of increased access to cash, women have built their household assets such as utensils, clothes and school materials for their children. There are also some who used the income sustainably through purchasing productive assets (a common form of saving in rural areas)

[36] The SLMP2 project did not then use a time use survey for quantitative data collection. However, from qualitative discussions such as focus group discussions in communities confirmed women and girls saved several hours a week from time spent from collection to firewood from successful adoption of clean cookstoves in their homes.

sheep, goats, chicken etc.

- Community groups stressed that they have improved access to health services and infrastructure, especially maternal health, because of the Government of Ethiopia's Commune Development Program (CDP) or villagization program in areas such as Itang (Gambella). Women in this area stated have better access to grinding mills, schools and health centers because of this aspect of the program.

The project has also been focusing on practical gender needs, especially with activities aimed at increasing access to drinking water, reducing workload of women through provision of improved fuel saving stoves, solar panels, and enhancing their income through trainings on vegetable, coffee, spice production, among others. The land holding certification component is also anticipated to have an impact through enhancing women's access to and control over one of the most important productive assets in a rural community, which is land; thereby meeting the strategic needs of women such as economic empowerment, enhanced decision making power, and improved power relations in the household.

5. Conclusion and recommendations

This gender study assessed influencing factors to women's participation including gender norms, gender-based division of labour, access to and control over resources; as well as SLMP-II implementation mechanisms for gender mainstreaming in order to identify challenges, gaps and design appropriate gender action plan for the forthcoming RLLP based on the SLMP-II implementation experience.

The assessment presents gender gaps in literacy, employment and ownership of crop and livestock across the country, indicating the need for preferential treatment for females in providing such services.

While women's participation in SLMP-2 labour contribution has been applauded, the findings reveal that their engagement in leadership roles in Community Watershed Teams (CWTs) is still weak, except in some areas like Kersa (Oromia Region) where implementers have taken the initiative to ensure 50% female representation in community level leadership roles, thereby affirming that it is achievable. This indicates that further action could be taken to ensure 50% female representation especially in training opportunities and leadership roles across all the regions.

Male community members, as well as grassroots implementers recognized the capacity and commitment of women in SLMP-II activities. Women are usually considered as more reliable in most of the target areas. However, this seems to have put more pressure on women to contribute labour, in addition to the reproductive and productive roles they have in their household. Given the value of women's labour and their burden, "light work" should be allocated and defined in the context of SLMP to reduce women's engagement in labour intensive activities, unless they chose so. The time set out for SLMP-II activities should also consider women's time constraint and disproportionate burden; and accordingly make provisions for reduced time input at the same wage. The work norms for women should be revised to provide reduction in the workload of women at the same wage rate per day, through allowing women to come to work 1 hour later, and leave 1 hour earlier.

While in some of the areas women engage in jobs requiring construction skills and supervisory roles, grassroots implementers require more guidance on how to enhance the capacity of women and improve gender relations and the gendered division of labour. Continuous gender related training on gender, gender considerations in different stages of RLLP, roles of grassroots implementers in mainstreaming gender, and use of gender disaggregated data in all planning and reporting mechanisms, as well as community awareness creation on gender equality, equity, division of labor and access to and control over resources are instrumental in bringing the desired change. Furthermore, the revised

gender mainstreaming guideline, along with the installment of gender focal persons in each could serve to ensure proper implementation, especially at the grass in the upcoming RLLP.

One of the practical needs of women and men in almost all the target communities is access to water and technologies that reduce the burden on women, such as grinding mills and improved cooking stoves. Lack of access to electric power and light is mentioned as a challenge in many of the remote sites. Addressing these gaps, along with meeting strategic needs through improving women's capacity, decision making power, and improved access to resources such as land, will have a sustainable impact on gender relations.

The study concludes that implementation mechanisms have been structured well from Federal to Regional, Woreda and community levels. However, these implementation structures should be supported further through gender related trainings, refreshers and revised guiding materials. Accordingly, the gender mainstreaming manual and PIM will be revised. Furthermore, experience-sharing visits to areas where there are outstanding gender related achievements, such as Kersa (Oromia) should be facilitated, to encourage implementers as well as community representatives about women's leadership capacities.

Pertaining to current and anticipated impacts, the study appreciates changes that have been achieved in changing community perceptions about women' role, income earning power and productivity. Income generating activities have been instrumental in shaping community perceptions, and should continue to target 50% female direct beneficiaries including in youth groups, self help groups and IGA activities.

Recommendations

Based on the study findings, the following recommendations are forwarded, aligned to the objectives and outputs of RLLP.

Out Put 1: Higher participation of both men and women in sustainable land restoration and water conservation practices;

- Conduct gender awareness training on division of labour, roles, benefits and participation in sustainable land restoration and water conservation activities, and gender-based violence
- Increase membership of women in different committees such as Community Water Shade Teams (CWT) or Water User Associations (WUA), Kebele Watershed Team (KWT) Kebele Land Administration and Use Committees (KLAUC) to 50%.
- Conduct experience sharing between regions on best practices on gender mainstreaming and women's empowerment (e.g. the case of Kersa in Oromia as one of the best practices).

Out Put 2: Higher participation of both men and women in improved and Climate Smart Agricultural practices;

- Ensure equal participation of men, women and FHHs on different packages of CSA (Conservation Agriculture, Agro-Forestry, Compost Application, biological measures for soil and water conservation).
- Conduct experience sharing between implementing regions on technology transfer, adaptation and promotion.

Out Put 3: Higher participation of both Men and Women in SHG, local Value Chain and other Agri-business initiatives;

- Identify and promote commodities/ products that have the potential for market development (such as vegetables and fruit farming, poultry production, shoat fattening, forage production, apiculture etc.) for women and youth.

Out Put 4: Gender Sensitive Technologies that are accessible and affordable to both men and women;

- Introduce technologies that contribute towards the reduction of deforestation and greenhouse emissions and reduce the workload of women based on the needs and interest of female farmers and FHHs, including solar light, solar mills, solar cooking stoves etc.

Out Put 5: Building the Capacity of Institutions Implementing the Project for Mainstreaming Gender Issues;

- Conduct participatory gender audit process (including organizational culture and the presence of sufficient human resources to carry out gender-related activities and mainstreaming) in RLLP implementing institutions [37]
- Strengthen the capacity of implementing institutions (provide trainings and refreshers) to ensure equitable benefits to women and men.

Output 6: Improve women's entitlement to land and enforce land certification proclamation

- Create awareness on the importance of equal land use rights and tenure (holdings) between men and women to reduce gaps between land holding certification

[37] National level, regional wordea, and community level platforms representative from the Office of Women, Youth and Children Affairs; guidelines for women's representation on the decision-making bodies are stated in the project implementation manual.

proclamation and its enforcement, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz.

- Support the capacity of law enforcement institutions such as courts and local administrative organs on existing laws and land holding certification proclamations, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz.

Gender indicators and baseline Data:

Baseline data are currently not available by all regions; however, the RF provides an alternative way to track progress (e.g., starting from baseline of N/A or "0,") the indicator measures incremental changes/values throughout project implementation to demonstrate progress (e.g. six months progress report). Baseline data will be collected, and targets will be set prior to implementing project activities.

Annex 1:

Key Gender Issues and Guidelines: Component 1 – Component 4

Component 1: Integrated Watershed and Landscape management

Key Gender Issues	• Lack of sufficient infrastructure along with harmful traditional practices and perception continue to constrain women's access to livelihood options, information and resources more than men in some of the target areas. • Harmful traditional practices hamper women's access to resources, decision-making power and capacity to adapt to climate change, esp in Gambella and Benishangul Gumuz; compounded by capacity gaps of law enforcing organs, deep-rooted beliefs of the community and members of the law enforcing body. • There is unequal access to and control over resources. Women enjoy limited decision making, pertaining to property and other important development issues. Women's control is mostly limited to small productive assets, such as sheep, goats, chicken, vegetables and fruits. Men on the other hand have higher control over cattle, such as oxen and cows. • Women and men suffer differently from the effects of land degradation and resulting food insecurity and climate change. Women and children are the most affected by hunger and malnutrition.

	• Women often lack access to information, finances, skill and time. • Women have work burden because of their domestic, productive and community management roles, which results lack of sufficient time to engage in project activities, that help them to generate income. • Females' unemployment rate is significantly higher than that of men in Ethiopia. • Men's attitude about women's capacity and women's self-confidence is a major factor in limiting women's role and engagement especially in trading activities. • Married women and female heads of households have time constraints, while young single females indicated that they have the time and high interest to engage in different components of the sustainable land management project • Women have lower access to information and trainings as compared to men. • There is lower participation and benefit of women in sub-components such as trainings on coffee planting, spices planting, improved vegetable and potato production, NRM bylaw setting etc.
Guidelines	• Promote off-farm and on-farm income generating activities such as vegetables and fruit farming, poultry production, shoat fattening, forage production, apiculture etc for landless women and youth. • Reduce the workload of women, through promotion of fuel saving stoves, water pumps, wells, solar light and climate sensitive solar powered mills etc. • Provide women and men equal opportunities to benefit from different training activities and decision-making processes/ structures. • Efforts to enhance women's participation should focus on identifying and targeting more female youth through public work and IGA activities. • Ensure equal (50/50) participation of men, women and FHHs on different packages of CSA (Conservation Agriculture, Agro-Forestry, Compost Application, biological measures for soil and water conservation). • Allocate activities deemed as "light work" to reduce the burden on women. Light work could include activities that require less strenuous engagement, such as planting of seedlings, weeding, watering and stone collection. However, definition of light work should be undertaken in each specific site, together with the community team leaders and community watershed committee members. • Make provisions for women's reduced time input at the same wage. The work norms for women should be revised to provide reduction in the workload of women at the same wage rate per day, through allowing women to come to work 1 hour later, and leave 1 hour earlier. • Use different strategies such as home visits, provision of cook stoves, solar panels etc to boost women's attendance of trainings and engagement in RLLP. • Identify model women and men (couples and families) where gender relations and decision-making are more egalitarian, to them as "community change agents" in their respective social groups.

Component 2: Strengthening institutions and information for resilience

Key Gender Issues	• Most of the grassroots implementers or Development Agents (DAs) had limited exposure to gender related trainings • Gaps in availing leaflets, brochures, posters etc in local languages, which could be instrumental in guiding the work of grassroots development agents during community awareness building on gender issues • There is good engagement of Women's affairs bureaus at the regional, Woreda and even kebele levels, except few areas where there is the challenge of staff turnover.
Guidelines	• Strengthen linkages with stakeholders at the Federal, Regional and Woreda levels so as to enhance the impact of the program and avoid duplication of efforts. Ensure regular meetings of the Regional SLMP Steering Committees and engagement of Women's national machineries such as Women and Children's Affairs offices. • Increase capacity of grassroots implementers on how to mainstream or integrate gender into other RLLP trainings, rather than giving it as stand-alone training. • Continuous engagement and trainings for new and existing staff in implementing partners, such as Bureaus of Women and Children Affairs • Ensure the mainstreaming of gender concepts in all physical trainings and avail IEC/ BCC materials on gender and other physical trainings in local languages.

Component 3: Land administration and use

Key gender issues	• Land holding certification of polygamous households has posed some challenges and is not uniform across the regions where polygamy is practiced. • While certificates affirming joint ownership will contribute towards increasing women's access to and control over land, income generating activities need to be enhanced to ensure women's benefit from land resources.
Guidelines	• Ensuring equal participation of women in trainings opportunities that will enable them to utilize their land resources effectively. • Target more women through trainings on improved vegetable production,

	potato production, spices planting, coffee planting and bee keeping etc for improved land use. • Promote the best legal measure in land certification of polygamous households, which is to divide the plots equally among all spouses, and prepare separate certificates for each wife together with the husband. • Create awareness on the importance of equal land use rights and tenure (holdings) between men and women. • Support the capacity of law enforcement institutions such as courts and local administrative organs on existing laws and land holding certification proclamations, with special attention to areas where polygamy is practiced such as Gambella and Benishangul Gumuz.

Component 4: Project management and reporting

Key gender issues	• Regular supervision and monitoring is required to ensure that implementation is progressing along the gender mainstreaming guideline. • Most development agents have limited knowledge on how to mainstream or integrate gender in their everyday work. • There is absence of regular staff assigned to work on gender issues at the Regional levels. • 30% quota allocated for females' leadership is not sufficient to ensure women's equal participation in all phases of the project cycle, and to empower and capacitate more women for leadership and decision-making positions.

Guidelines	• Assign Regional level Gender focal persons who could take key roles in supervising and ensuring implementation of the gender mainstreaming guideline. The Gender focal persons will engage in building the capacity of grassroots implementers and in preparing regular quarterly reports on the implementation progress, along with identified gaps, challenges and potential mitigation measures.
	• Conduct continuous refresher trainings for grassroots implementers, esp DAs on
	  • Gender and gender mainstreaming concepts, including gender-based violence
	  • Overview of gender issues, provisions and gender sensitive approaches under RLLP
	  • Gender considerations in different stages of RLLP, including considerations for GBV measures (mitigation, prevention, response)

	• Roles and responsibilities of different stakeholders/ implementers in mainstreaming gender • Gender disaggregated data in planning and reporting mechanisms • Gender analysis tools • There is a need for consistent use of gender-disaggregated data throughout the reports, including on landless male headed households, female headed households who received different services, women and men who engaged in labour contributions, jobless youth who engaged in different activities, self help groups and IGA. • Experience-sharing visits should be facilitated to areas where there are outstanding gender related achievements, such as Kersa (Oromia). • There is a need for participatory gender audit process (including organizational culture and the presence of sufficient human resources to carry out gender-related activities and mainstreaming) in RLLP implementing institutions.

Annex 2: Regional Statistics of GBV in Ethiopia

Region	Type of GBV	Proportion of women who have experienced violence[38]	Source	Possible Interventions to address GBV
Oromia	Overall physical violence	28%	DHS	• Conducting group meetings on partner communication, non-violent and respectful relationships, caring for wives and children, alcohol and drugs, STIs, HIVs/AIDs, VCT, ART, family planning, safe motherhood, and sexual and domestic violence • Conducting
	Sexual violence	9%	DHS	
	Intimate Partner Violence (IPV)	38%	DHS	
	Marriage by abduction	80%	UNICEF, 2012	
	Child marriage	41%	Marshall et al. (2016)	
	FGM/C (for girls under 15)	17%	Jones, Gupta, & Tefera (2015)	
Tigray	Sexual violence	11-13%	DHS	
	FGM/C	24%	DHS	
	FGM/C (for	22%	Jones, Gupta, &	

[38] Among 15-49-year-old women

	girls under 15)		Tefera (2015)	advocacy, public education and awareness campaigns • Engaging popular figures as role models to address and advocate against GBV • Economic empowerment initiatives (e.g. IGA) • Referral to legal aid services • Increasing capacity of governments and non-government organizations to address issues related to GBV • Building capacity of law enforcement bodies, health service providers, students, teachers and youth, women and community leaders through provision of trainings • Strengthening coordination mechanism on GBV at different levels
	Child marriage	43%	Marshall et al. (2016)	
Amhara	Sexual violence	11-13%	DHS	
	Child Marriage	74%	DHS	
	FGM/C	67%	Rahlenbeck & Mekonnen (2009)	
	FGM/C (among 45-49 year old women)	77%	Rahlenbeck & Mekonnen (2009)	
	FMG/C (among 15-24 year old women)	59%	Rahlenbeck & Mekonnen (2009)	
	FGM/C (for girls under 15)	47%	WMS, norad	
Gambella	FGM/C	33%	DHS	
	FGM/C (for girls under 15)	7%	Jones, Gupta, & Tefera (2015)	
	Child marriage	47%	Marshall et al. (2016)	
SNNPR	Marriage by abduction	92%	UNICEF, 2012	
	Child marriage	30%	Marshall et al. (2016)	
	FGM/C (in women 15-49)	75%	Jones, Gupta, & Tefera (2015)	
	FGM/C (in girls under 15)	9%	Jones, Gupta, & Tefera (2015)	
Benishangul-Gumuz	FGM/C (for girls under 15)	24%	Jones, Gupta, & Tefera (2015)	

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Annex1: Gender Action Plan for RLLP

Activities	Indicators and targets	Timeline	Responsibilities	Costs

(Approximate Total Budget for Gender Activities: $726,558 - GCF budget: $484,374 + Co-financing: $242,184)

Please note: All the activities are starting at 0 as their baseline. Participation and representation of women in all activities is expected to be at least 50%.

Impact Statement: Increased climate resilience, land productivity, carbon storage and diversified livelihoods of women and men, including poor and female headed households in selected rural watersheds; increased access to ownership and control of assets and improved voice and agency. **Outcome Statement:** Improved access to livelihoods opportunities, assets, information, technology, resources, and improve voice and agency to community members in 192 major watersheds, of which 50% are women and female-headed households.				
Component 1				
Out Put 1: Higher participation of both men and women in sustainable land restoration and water conservation practices				
• *Conduct Gender analysis (Collect, analyze and profile gender norms, customs and values to determine beliefs, perceptions and stereotypes relating to differences between women and men in relation to the program components)* • *Conduct gender awareness training on division of labour, roles, benefits and participation in sustainable land restoration and water conservation activities* • *Strengthen implementation practices to ensure female and male representation in planning, implementation and monitoring activities* • *Gender sensitive information, education and communication (IEC) materials disseminated to guide implementation of gender dimensions of the project* • *Conduct experience sharing between*	• *One Gender Analysis Report and baseline data* • *Increased participation of women, FHH Target group or project beneficiaries to 50%, in sustainable land restoration and water conservation activities* • *Increased membership of women in different committees such as Community Water Shade Teams (CWT) or Water User Associations (WUA), Kebele Watershed Team (KWT) Kebele Land Administration and Use Committees (KLAUC) to 50%* • *Number and type of IEC materials produced and disseminated (2)* • *Number and percentage of women and men who receive training provided by RLLP, by type of training (50% representation of female and males)*	• *2020* • *By 2023* • *By 2021* • Six-monthly progress report • Six-monthly progress report	• *Federal Project Coordinating Unit (PCU) at the Ministry of Agriculture and Natural Resources* • *Regional Project Coordination Unit of Bureau of Agriculture (BoA) of the 6 regions* • *Woreda Agricultural Development Offices* • *WB*	

regions on best practices on gender mainstreaming and women's empowerment • *Identify model women and men (couples and families) where gender relations and decision making are more egalitarian; and engage them as "community change agents" in their respective social groups*	• *Number of experience sharing visits by year (2; one every 6 months)* • *Number of model couples identified and engaged ((To be determined after the gender analysis report and baseline data)*	• Six-monthly progress report		
Out Put 2 Higher participation of both men and women in improved and Climate Smart Agricultural practices				
• *Introduce technologies that reduce time and labor of women farmers and FHHs, including solar light, solar mills, solar cooking stoves* • *Train men, women & FHHs on different packages of CSA (Conservation Agriculture, Agro-Forestry, Compost Application, biological measures for soil and water conservation)* • *Conduct experience sharing between implementing regions on women technology adaptation and promotion*	• Impact evaluation of crop yield as a result of CSA intervention disaggregated by male or female-headed households • *Percentage change in crop yield per hectare as a result of CSA intervention disaggregated by male or female-headed households* • *Number of farmers who use (a) weather and climate information services; (b) price information on a regular basis (disaggregated by sex; target to be determined after baseline collection)* • *50% female participation in different packages and experience sharing visits* • *Number of new technologies introduced to reduce the time and labor of women*	• *By year 2023* • *Six-monthly progress report* • *Six-monthly project progress report*	• *Federal Project Coordinating Unit (PCU)* • *CIGAR institutions engaged for CSA impact evaluation* • *Regional Project Coordination Unit* • *Woreda Agricultural Development Offices*	

	farmers (to be determined after the analysis report and baseline data) • *Number of experience sharing visits by year (two per year)* • *Farmers who consider themselves better off (for example, livelihood, income, nutrition) now than before the CSA intervention (disaggregated by sex; target to be determined after the analysis report and baseline data)* •			
Out Put 3: Higher participation of both Men and Women in SHG, local Value Chain & other Agri-business initiatives				
• *Carryout gender sensitive value chain analysis & mapping of gender roles, relations and challenges along the Value Chain of identified products, as well as the market barriers to entry* • *Identify and promote commodities/ products that have the potential for market development (such as vegetables and fruit farming, poultry production, shoat fattening, forage production, apiculture etc.)*	• *One value chain analysis, which is gender sensitive and maps out gender roles* • *Female-headed households participating in diversified livelihood activities supported by the project (50% representation)* • *50% of livelihood clients and SHG members participating in functional income generating associations as a result of the project are female & female headed households* • *Number of farmers part of functional associations (disaggregated by sex and by type of association, for example, cooperative, producer association*	• *By 2021* • *Six-monthly project progress report* • *Six-monthly project progress report*	• *Federal PCU* • *Regional PCU* • *Regional Cooperative Promotion Offices* • *Woreda Cooperative Promotion Offices* • *TVET, Small and Micro enterprises, Micro Credit Associations etc*	

	(target to be determined after analysis report and baesline data collection) • *Income from agricultural and nonagricultural sources (disaggregated by male-/female-headed households) (target to be determined after analysis report and baseline data)*			
Out Put 4: Gender Sensitive Technologies that are accessible and affordable to both men and women				
• *Introduce technologies that contribute towards the reduction of deforestation and greenhouse emissions and reduce the workload of women based on the needs and interest of female farmers*	• *Numbers or percentages of Women and FHHs who have access to and use of gender sensitive technologies in the project area (including energy, labour and time saving cook stoves, bio gas digesters, etc) (50% or equal representation of women and men)* • *Number of SHGs that engage in the production and marketing of improved cook stoves (to be determined after the gender analysis report and baseline data)*	• *By 2021* • *Six-monthly project progress report*	• *Federal Project Coordinating Unit (PCU)* • *Regional PCU* • *Bureau of Water, Irrigation & Energy*	
Component 2:				
Out Put 5 Building the Capacity of Institutions Implementing the Project for Mainstreaming Gender Issues				
• *Conduct participatory gender audit process (including the organizational culture and the presence of sufficient*	• *Gender Audit Report (1)* • *Number of gender specialists or gender focal persons hired at the regional level*	• *By year 2020* • *By year*	• *Federal PCU* • *Regional PCU* • *WB*	

human resources to carry out gender-related activities and mainstreaming) in RLLP implementing institutions • *Strengthen the capacity of implementing institutions (provide trainings & refreshers) to ensure equitable benefits to women and men*	*(6)* • *Number and percentage of women and men staffs or service providers who received training provided by RLLP, by type of training (1; 100%)*	*2020* • *By year 2020*	•	
Component 3:				
Output 6: Improve women's entitlement to land and enforce land certification proclamation				
• *Create awareness on the importance of equal land rights and tenure (holdings) between men & women to reduce gaps between land certification proclamation and its enforcement, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz* • *Support the capacity of law enforcement institutions such as courts and local administrative organs, on existing laws and land certification proclamations, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz*	• *Equitable (50%) participation of women and men in awareness programs on equal land rights and holdings* • *Number or percentage of females, FHH and males holding second degree land certificate (Target 80%)* • *No of law enforcement officials sensitized or trained on land certification (to be determined after the gender analysis report)*	• *2020, baseline data* • *Six monthly progress report* • *Six-monthly progress report*	• *Federal Project Coordinating Unit (PCU)* • *Regional Project Coordination Unit* • *Woreda Agricultural Development Offices*	
Component 4				
Output 7: Enhanced gender Perspective in program design, implementation, monitoring, evaluation & reporting				
• *Capacity building/ training for partners and implementers on*	• *No of implementers sensitized or trained on gender sensitive project design,*	• *Sex-disaggregate*	• *Federal Project Coordinating Unit*	

collecting and analysis of sex-disaggregated information • *Develop and disseminate simple gender responsive reporting format that includes both quantitative and qualitative analysis of periodic implementation reports* • *PIM to integrate gender provisions and tools for improved implementation practices at the grassroots levels*	*implementation, monitoring and evaluation* • *One Gender sensitive M&E framework* • *Number of periodic gender sensitive reports (sex disaggregated data presented) (1 per year)* • *Number of supervision visits (2 per year)* • *Updated PIM (one)* • *Reviewed Electronic Planning and Reporting Tool (PRT) for gender responsive reporting (One, revised PRT)*	*d baseline Information in 2020* • *Revised PIM (2020)* • *RLLP Mid Term Gender Impact Assessment Report by 2021* • *RLLP Final Evaluation Reports by the end of project*	*(PCU) at the Ministry of Agriculture and Natural Resources* • *Regional Project Coordination Unit of Bureau of Agriculture (BoA) of the 6 regions where the project is implemented* • *Woreda Agricultural Development Offices* • *WB* •	

Annex 4: List of people contacted and key informants

	Name	Region/ position
1	Ruach Guk	Itang/ Community facilitator
2	G/Wech Char	Itang (Cooperative DA)
3	Chuol Tor	Itang/ DA
4	Wubitu Alemayehu	Itang/ Woreda Focal person
5	Biel Dak	Gambella/ Safeguard expert
6	Obong Pop	Abobo, Kebele Chairperson
7	Ayana Aylawa	Abobo, Kebele Social court
8	Obong Odel	Community elder
9	Kiru Omod	Woreda Natural Resource officer
10	Teketel Haile	Woreda Natural resources officer
11	Dr.Lou Obup Opiew	Regional Head of Agriculture and Natural Resources
12	Zeleke Eniyew	Gambella, SLMP M& E specialist
13	Nyabang Both Biyach	Gambella BoANR, Women's unit
14	Nebiyou Mammo	Gambella, Bureau of women and children's affairs, Gender Mainstreaming core process
15	Mulat Birega	Gambella, SLMP Coordinator
16	Halifa Abdu	Benishangul, Homesha Gumu Kebele Community facilitator
17	Engida Berhanu	Homesha, Woreda focal person
18	Andinet Tesfa	Homesha, Rural infrastructure expert
19	Becherah Abdissa	Benishangul, DA
20	Fetene Mulugeta	Benishangul, DA
21	Fantahun Alediga	Benishangul, Natural resource expert
22	Oumer Said	Benishangul, Bambasi Woreda, Natural Resource Expert
23	Gultew Adem	Benishangul, Bambasi, Kebele Administrator
24	Simegn Berhanu	Benishangul, Bambasi, Kebele Natural resource expert
25	Melaku Womber	Benishangul, Regional Safeguard
26	Yeshiwas Ejigu	Benishangul, Regional Women and Children Affairs bureau, Women's

		mainstreaming and benefit ensuring directorate
27	Shambel Gudeta	Benishangul, Regional Women and Children Affairs bureau, Women's mainstreaming and benefit ensuring directorate
28	Jilalo Kemal	SNNP, Kebele DA
29	Dereje Abebe	SNNP, Woreda focal person
30	Matiwos Haile	SNNP, Gembora Kebele, DA
31	Ayele Lire	SNNP, Woreda land administration expert
32	Baweke Abebe	Amhara, Debremarkos, Be-ad Kebele Community facilitator
33	Demeke Ketema	Amhara Region, SLMP focal person
34	Yesewmar Abatu	Amhara region, Woreda level women's affairs bureau project supervision expert
35	Enchilew Dewas	Kebele Agriculture Bureau head
36	Gebreyesus Zeleke	SLMP Woreda focal person
37	Mehari G/Medhin	Tigray, SLMP Regional Coordinator
38	Kiros G/Hiwot	Environment and Social Safeguard specialist
39	Fisehatsion Kassa	Tigray, Kolla Tembien, SLMP focal person
40	Addisu G/Kristos	Tigray, Tanqa Abergele Woreda Focal Person
41	Girmay Kahssa	Tigray, Tanqa Abergele, Kebele DA
42	Alemu	Kuyu, Oromia, Woreda Focal person
43	Adnan Mohammed Abdella	Misrak Harerge (Oromia), Kersa Woreda, Focal person

Annex 2: RLLP Gender mainstreaming implementers/Actors

The roles and responsibilities of implementers at all levels are stated below to facilitate the implementation of the gender mainstreaming in RLLP.

Federal and Regional program coordinators

- Facilitate and coordinate all activities implemented within the programme to be gender sensitive and responsive

- Coordinate and motivate all RLLP specialists to consider gender issues in their respective activities as stated in the guideline and PIM
- Facilitate and create accountability mechanism to all implementers to work for gender equality in their respective areas of work
- Create conducive environment for gender mainstreaming
- Coordinate and conduct continuous supportive supervision to ensure the implementation of women specific activities which ensure access to and control over resources, decision making and reduce workload
- Support and Ensure the election of women to CWT, KLAUC, KWT and other SLM relevant committee membership be balanced (50%)to that of men
- Coordinate and review the status of program activities plan & implementation with respect to gender at various level; Ensure equal benefit share of male and female farmers in targeted watersheds

Federal and regional RLLP Environment and Social Safeguard specialists

- Facilitate and encourage implementers of RLLP to plan & implement program activities by considering the needs and concerns of male and female farmers and youth within the targeted watersheds
- Support and encourage regional and woreda RLLP focal persons and implementers in different work process to consider gender issues as per the PIM, and GMG Support and Ensure the election of women to CWT, KLAUC, KWT and other SLM relevant committee membership be balanced (50%)to that of men
- Conduct training need assessment of regional and Woreda experts and gender focal persons
- Facilitate and coordinate Gender mainstreaming trainings based on identified needs
- Ensure that program activities do not cause negative impact on gender equality and women's workload
- Create conducive environment that supports the implementation of gender issues at all levels
- Facilitate identification, scaling up and documentation of best practices that have benefitted women

- Review the status of participation and benefit of male and female farmers, youth, and vulnerable groups of people within the targeted community and work for further improvement
- Provide continuous support and monitoring to ensure the planning and implementation of activities targeting women, which ensure women's access to and control over resources, decision making and reduced workload
- Ensure that budget include gender specific activities
- Coordinate, collect, compile and disseminate sex disaggregated information in respective areas of work
- Work closely with regional and national RLLP gender focal persons

Federal and Regional RLLP Specialists

- Support and encourage woreda staff to initiate gender sensitive and responsive activity plans and implement them in their respective areas and mandates
- Consider gender issues and directions relevant to their areas of work that are indicated in the RLLP project implementation manual and gender mainstreaming guideline
- Provide continuous support, backstopping and monitor, the equal participation and benefitting of male and female farmers ,youth and vulnerable groups of targeted community
- Ensure equal participation and benefitting of male and female farmers ,youth and vulnerable groups of targeted community in respective areas and mandates
- Collect, compile and disseminate sex disaggregated information in respective areas of work
- Review the status of programme implementation from gender perspective
- Ensure that program activities do not cause negative impact on gender equality and women's workload
- Ensure that budget include gender specific activities
- Provide sex disaggregated activity plans and performance reports in all project activities and own respective areas of specialization

RLLP Woreda focal Person

- Facilitate and coordinate all RLLP implementing sectors to consider the needs and concerns of male and female farmers, youth and vulnerable groups of the community during activity planning and implementation
- Coordinate, support and supervise the implementation of RLLP PIM gender provisions, for gender equality
- Make sure that gender issues and directions which are indicated in RLLP gender mainstreaming guideline and project implementation manual are considered during planning, implementation, monitoring and evaluation
- Ensure the election of women to CWT, KLAUC, KWT and other SLM relevant committee membership be balanced (50%)to that of men
- Facilitate and conduct training based on identified gender training needs
- Facilitate and ensure the equal participation and benefit of male and female farmers as per RLLP PIM, and Gender mainstreaming guideline
- Collect, use, disseminate, and document sex disaggregated information of RLLP activities
- Review the status of RLLP implementation from gender perspective
- Work closely with woreda gender focal persons
- Conduct continuous follow up and support to ensure the planning and implementation of women specific activities which ensure women's access to and control over resources, decision making and reduced workload in target communities
- Ensure that program activities do not cause negative impact on gender equality and women's workload
- Ensure that budget include gender specific activities
- Raise DAs awareness level on gender issues in collaboration with woreda gender focal person
- Creat/ Raise awareness level of communities on gender issues in collaboration with woreda gender focal person

- Ensure that work plans and the implementation of RLLP are gender responsive for equal benefit of male and female community
- Provide sex disaggregated activity plans and performance reports in all project activities and respective areas of specialization

Development Agents (DAs)

- Facilitate and ensure the full involvement of male and female farmers, youth and vulnerable group in need identification, prioritization and planning of RLLP activities
- Facilitate and ensure that the needs and concerns of male and female farmers and youth are taken into consideration during planning and implementation. It is important to set separate focus group discussions so as to enable women to participate at a time that is convenient for them as well as a place without fear of intimidation
- Make and ensure women's membership in CWT, KWT, KLAUC and other SLM relevant committees to be balanced (50%) to that of men as per PIM and GMG .
- Facilitate and ensure that male and female farmers are participating during implementation and evaluation of RLLP activities
- Facilitate and ensure equal benefitting of male and female farmers from RLLP interventions
- Organize women groups to ensure the planning and implementation of women-specific activities
- Ensure that program activities do not cause negative impact on gender equality and women's workload
- Ensure that budget include gender specific activities
- Provide sex disaggregated activity plans and performance reports in all project activities in their respective areas of specialization
- Create/raise awareness of Kebele and community watershed teams, religious leaders, traditional institutions leaders, elders relevant kebele decision makers and to all male and female farmers on the need for gender mainstreaming and equality

Annex D4: Gender Action Plan for RLLP

(Approximate Total Budget for Gender Activities: $1,148,708 - GCF budget: $484,374 + Co-financing: $664,334)

Please note: All the activities are starting at 0 as their baseline. Participation and representation of women in all activities is expected to be at least 50%.

Impact Statement: Increased climate resilience, land productivity, carbon storage and diversified livelihoods of women and men, including poor and female headed households in selected rural watersheds; increased access to ownership and control of assets and improved voice and agency. **Outcome Statement:** Improved access to livelihoods opportunities, assets, information, technology, resources, and improve voice and agency to community members in 192 major watersheds, of which 50% are women and female-headed households.				
Component 1				
Out Put 1: Higher participation of both men and women in sustainable land restoration and water conservation practices				
• *Conduct Gender analysis (Collect, analyze and profile gender norms, customs and values to determine beliefs, perceptions and stereotypes relating to differences between women and men in relation to the program components)* • *Conduct gender awareness training on division of labour, roles, benefits and participation in sustainable land restoration and water conservation activities* • *Strengthen implementation practices to ensure female and male representation in planning, implementation and monitoring activities* • *Gender sensitive information, education and communication (IEC) materials disseminated to guide implementation of gender dimensions of the project*	• *One Gender Analysis Report and baseline data* • *Increased participation of women, FHH Target group or project beneficiaries to 50%, in sustainable land restoration and water conservation activities* • *Increased membership of women in different committees such as Community Water Shade Teams (CWT) or Water User Associations (WUA), Kebele Watershed Team (KWT) Kebele Land Administration and Use Committees (KLAUC) to 50%* • *Number and type of IEC materials produced and disseminated (2)* • *Number and percentage of women and men who receive training provided by RLLP, by type of training (50% representation of female and males)*	• *2020* • *By 2023* • *By 2021* • Six-monthly progress report • Six-monthly progress report	• *Federal Project Coordinating Unit (PCU) at the Ministry of Agriculture and Natural Resources* • *Regional Project Coordination Unit of Bureau of Agriculture (BoA) of the 6 regions* • *Woreda Agricultural Development Offices* • *WB*	

• *Conduct experience sharing between regions on best practices on gender mainstreaming and women's empowerment* • *Identify model women and men (couples and families) where gender relations and decision making are more egalitarian; and engage them as "community change agents" in their respective social groups*	• *Number of experience sharing visits by year (2; one every 6 months)* • *Number of model couples identified and engaged ((To be determined after the gender analysis report and baseline data)*	• Six-monthly progress report		
Out Put 2 Higher participation of both men and women in improved and Climate Smart Agricultural practices				
• *Introduce technologies that reduce time and labor of women farmers and FHHs, including solar light, solar mills, solar cooking stoves* • *Train men, women & FHHs on different packages of CSA (Conservation Agriculture, Agro-Forestry, Compost Application, biological measures for soil and water conservation)* • *Conduct experience sharing between implementing regions on women technology adaptation and promotion*	• Impact evaluation of crop yield as a result of CSA intervention disaggregated by male or female-headed households • *Percentage change in crop yield per hectare as a result of CSA intervention disaggregated by male or female-headed households* • *Number of farmers who use (a) weather and climate information services; (b) price information on a regular basis (disaggregated by sex; target to be determined after baseline collection)* • *50% female participation in different packages and experience sharing visits* • *Number of new technologies introduced to reduce the time and labor of women farmers (to be determined after the analysis report and baseline data)* • *Number of experience sharing visits by year (two per year)*	• *By year 2023* • *Six-monthly progress report* • *Six-monthly project progress report*	• *Federal Project Coordinating Unit (PCU)* • *CIGAR institutions engaged for CSA impact evaluation* • *Regional Project Coordination Unit* • *Woreda Agricultural Development Offices*	

	• *Farmers who consider themselves better off (for example, livelihood, income, nutrition) now than before the CSA intervention (disaggregated by sex; target to be determined after the analysis report and baseline data)* •			
Out Put 3: Higher participation of both Men and Women in SHG, local Value Chain & other Agri-business initiatives				
• *Carryout gender sensitive value chain analysis & mapping of gender roles, relations and challenges along the Value Chain of identified products, as well as the market barriers to entry* • *Identify and promote commodities/ products that have the potential for market development (such as vegetables and fruit farming, poultry production, shoat fattening, forage production, apiculture etc.)*	• *One value chain analysis, which is gender sensitive and maps out gender roles* • *Female-headed households participating in diversified livelihood activities supported by the project (50% representation)* • *50% of livelihood clients and SHG members participating in functional income generating associations as a result of the project are female & female headed households* • *Number of farmers part of functional associations (disaggregated by sex and by type of association, for example, cooperative, producer association (target to be determined after analysis report and baesline data collection)* • *Income from agricultural and nonagricultural sources (disaggregated by male-/female-headed households) (target to*	• *By 2021* • *Six-monthly project progress report* • *Six-monthly project progress report*	• *Federal PCU* • *Regional PCU* • *Regional Cooperative Promotion Offices* • *Woreda Cooperative Promotion Offices* • *TVET, Small and Micro enterprises, Micro Credit Associations etc*	

	be determined after analysis report and baseline data)			
Out Put 4: Gender Sensitive Technologies that are accessible and affordable to both men and women				
• *Introduce technologies that contribute towards the reduction of deforestation and greenhouse emissions and reduce the workload of women based on the needs and interest of female farmers*	• *Numbers or percentages of Women and FHHs who have access to and use of gender sensitive technologies in the project area (including energy, labour and time saving cook stoves, bio gas digesters, etc) (50% or equal representation of women and men)* • *Number of SHGs that engage in the production and marketing of improved cook stoves (to be determined after the gender analysis report and baseline data)*	• *By 2021* • *Six-monthly project progress report*	• *Federal Project Coordinating Unit (PCU)* • *Regional PCU* • *Bureau of Water, Irrigation & Energy*	
Component 2:				
Out Put 5 Building the Capacity of Institutions Implementing the Project for Mainstreaming Gender Issues				
• *Conduct participatory gender audit process (including the organizational culture and the presence of sufficient human resources to carry out gender-related activities and mainstreaming) in RLLP implementing institutions* • *Strengthen the capacity of implementing institutions (provide trainings &*	• *Gender Audit Report (1)* • *Number of gender specialists or gender focal persons hired at the regional level (6)* • *Number and percentage of women and men staffs or service providers who received training provided by RLLP, by type of training (1; 100%)*	• *By year 2020* • *By year 2020* • *By year 2020*	• *Federal PCU* • *Regional PCU* • *WB* •	

refreshers) to ensure equitable benefits to women and men				
Component 3:				
Output 6: Improve women's entitlement to land and enforce land certification proclamation				
• *Create awareness on the importance of equal land rights and tenure (holdings) between men & women to reduce gaps between land certification proclamation and its enforcement, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz* • *Support the capacity of law enforcement institutions such as courts and local administrative organs, on existing laws and land certification proclamations, with special attention to areas where polygamy was practiced such as Gambella and Benishangul Gumuz*	• *Equitable (50%) participation of women and men in awareness programs on equal land rights and holdings* • *Number or percentage of females, FHH and males holding second degree land certificate (Target 80%)* • *No of law enforcement officials sensitized or trained on land certification (to be determined after the gender analysis report)*	• *2020, baseline data* • *Six monthly progress report* • *Six-monthly progress report*	• *Federal Project Coordinating Unit (PCU)* • *Regional Project Coordination Unit* • *Woreda Agricultural Development Offices*	
Component 4				
Output 7: Enhanced gender Perspective in program design, implementation, monitoring, evaluation & reporting				
• *Capacity building/ training for partners and implementers on collecting and analysis of sex-disaggregated information* • *Develop and disseminate simple gender responsive reporting format that includes both quantitative and qualitative analysis of periodic implementation reports* • *PIM to integrate gender provisions and tools for improved implementation practices at the grassroots levels*	• *No of implementers sensitized or trained on gender sensitive project design, implementation, monitoring and evaluation* • *One Gender sensitive M&E framework* • *Number of periodic gender sensitive reports (sex disaggregated data presented) (1 per year)* • *Number of supervision visits (2 per year)* • *Updated PIM (one)*	• *Sex-disaggregated baseline Information in 2020* • *Revised PIM (2020)* • *RLLP Mid Term Gender Impact Assessment*	• *Federal Project Coordinating Unit (PCU) at the Ministry of Agriculture and Natural Resources* • *Regional Project Coordination Unit of Bureau of Agriculture (BoA) of the 6 regions where the project is implemented*	

	• *Reviewed Electronic Planning and Reporting Tool (PRT) for gender responsive reporting (One, revised PRT)*	*Report by 2021* • *RLLP Final Evaluation Reports by the end of project*	• *Woreda Agricultural Development Offices* • *WB* •	