Enhancing Adaptive Capacity of communities by up-scaling best practices and adopting an integrated approach in Ethiopia

Part I: Project Information

GEF ID
10174

Project Type
FSP

Type of Trust Fund
LDCF

CBIT/NGI
- ☐ CBIT
- ☐ NGI

Project Title
Enhancing Adaptive Capacity of communities by up-scaling best practices and adopting an integrated approach in Ethiopia

Countries
Ethiopia

Agency(ies)
UNDP

Other Executing Partner(s):
Environment, Forest and Climate Change Commission (EFCCC)

Executing Partner Type
Government

GEF Focal Area
Climate Change

Taxonomy
Focal Areas, Climate Change, Climate Change Adaptation, Least Developed Countries, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approache, Stakeholders, Indigenous Peoples, Local Communities, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Capacity, Knowledge and Research, Capacity Development

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 1

Submission Date
4/4/2019

Expected Implementation Start
7/1/2021

Expected Completion Date
6/1/2026

Duration

60In Months

Agency Fee($)

848,580.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	Key government institutions at federal level and in all regions and cities are able to plan, implement and monitor priority climate change mitigation and adaptation actions and sustainable natural resource management.	LDCF	7,042,420.00	55,300,000.00
CCA-2	Key government institutions at federal level and in all regions and cities are able to plan, implement and monitor priority climate change mitigation and adaptation actions and sustainable natural resource management.	LDCF	1,890,000.00	16,900,000.00
		Total Project Cost($)	**8,932,420.00**	**72,200,000.00**

B. Project description summary

Project Objective

To promote the design and implementation of adaptation interventions to address the climate vulnerabilities of local communities at scale across Ethiopia

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
COMPONENT 1 Institutional and technical capacity development for coordination and climate mainstreaming.	Technical Assistance	Outcome 1. Strengthened regional and local institutional and technical capacity for coordination of climate resilient planning and investment.	1.1 Training provided on tools and methodologies for gender-sensitive climate vulnerability and risk assessments and gender-responsive adaptation planning at the kebele, woreda and city levels. 1.2 Integrated climate change adaptation/ disaster risk reduction plans – with gender action plans – developed at the regional, city and local levels for key sectors. 1.3. Climate change focal points identified and trained on coordination	LDCF	800,000.00	6,100,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
COMPONENT 2 Access to climate-smart technology.	Investment	Outcome 2. Access to climate-smart technologies and practices for cost-effective adaptation is enhanced	2.1 Training-of-trainers undertaken for decision makers and technical staff in targeted woredas and cities on implementation of gender-sensitive adaptation technologies tailored to local socio-economic and environmental contexts, including using climate data and forecasts to inform adaptation interventions at the community level 2.2 Targeted training to farmers in selected woredas on climate-smart agricultural practices, including the use of seasonal forecasts and climate advisories in their farming decisions. 2.3 Localized weather and climate advisories disseminated to provide real time agro-meteorological information to farmers, pastoralists and local decision makers. 2.4 Adaptation technologies and climate-smart agricultural practices – including previously identified best practices such as water and soil resource management, solar powered irrigation pumps, drought tolerant crop varieties introduced and scaled in targeted woredas and cities, targeting 225,000 beneficiaries. 2.5. Private-sector driven adaptation technologies, practices	LDCF	4,557,067.00	45,000,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
COMPONENT 3 Integrated landscape management.	Technical Assistance	Outcome 3. Community and institutional capacity for integrated landscape management	3.1. Training provided on participatory integrated land use mapping, valuation, monitoring and decision support using GIS and mobile ICT technologies. 3.2. Landscape maps developed and management practices for managing, conserving, using and restoring resources for resilient social, economic and environmental outcomes/benefits developed through participatory approaches and mapping technologies. 3.3. Guidance manuals for integrated landscape management practices developed and disseminated to woreda technical staff.	LDCF	1,000,000.00	10,400,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
COMPONENT 4 Livelihood diversification.	Investment	Outcome 4: Gender-responsive options for alternative livelihoods transferred to community to build resilience and reduce climate change vulnerability	4.1. Trainings for youth and women's organizations (4 groups per woreda) including technical/financial assistance for: (i) alternative income-generating livelihoods; and (ii) entrepreneurship, business skills and leadership. 4.2. Small-scale business plans and investment opportunities developed in partnership with private sector players. 4.3. Diversified livelihood activities introduced and scaled in targeted woredas and cities	LDCF	2,150,000.00	10,300,000.00
			Sub Total ($)		**8,507,067.00**	**71,800,000.00**
Project Management Cost (PMC)						
				LDCF	425,353.00	400,000.00
			Sub Total($)		**425,353.00**	**400,000.00**
			Total Project Cost($)		**8,932,420.00**	**72,200,000.00**

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Donor Agency	Adaptation Fund	Grant	Investment mobilized	10,000,000.00
Donor Agency	Green Climate Fund	Grant	Investment mobilized	45,000,000.00
Donor Agency	Government of Italy	Grant	Investment mobilized	4,300,000.00
GEF Agency	UNDP	Grant	Recurrent expenditures	400,000.00
Recipient Country Government	Government of Ethiopia	In-kind	Recurrent expenditures	12,500,000.00
			Total Co-Financing($)	**72,200,000.00**

Describe how any "Investment Mobilized" was identified

The co-financing was identified through discussions within government agencies that will be implementing the GCF, adaptation fund and government of Italy to make use of the synergies between these projects and the proposed LDCF project. The nature of the activities under these projects fall in the “investment mobilized” category, they are not meant to support government salaries and operational expenses. The UNDP co-financing will used to support the project activities in a flexible manner whenever the GEF resources cannot be used.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNDP	LDCF	Ethiopia	Climate Change	NA	8,932,420	848,580
				Total Grant Resources($)	**8,932,420.00**	**848,580.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

☐

PPG Amount ($)

200,000

PPG Agency Fee ($)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNDP	LDCF	Ethiopia	Climate Change		200,000	19,000
				Total Project Costs($)	**200,000.00**	**19,000.00**

Part II. Project Justification

1a. Project Description

There are no changes in alightment of the project design with the original PIF.
1) The adaptation problems, root causes and barriers that need to be addressed.
Ethiopia is a land-locked country with a total area of ~1.1 million km2. It harbours diverse agro-ecological zones associated with a complex topography comprising of high central plateau with an elevation from 1,290 to 3,000 m above sea level, which slopes gradually to the lowlands in the west and plains to the south-east. Ethiopia's population is 109.22 million, an average population density of 109.2 and annual population growth of 2.6%. Ethiopia has a predominantly rural economy where the agricultural sector is 31% of the GDP. Agriculture provides employment for about 85% of the population and accounts for about 90% of its exports . As its major sector, agriculture is under pressure to meet the needs of the rapidly growing population and support the country's economic productivity.
The climate of Ethiopia varies according to elevation, with a temperate climate on the plateau and hot in the lowlands. The weather is categorised as hot and dry, with the exception of the short (Belg) rains that occur from February to May and the big (Kiremt) rains from mid-June to mid-September. The National Meteorological Authority defines three seasons in Ethiopia based on temperature and rainfall activity as Bega (Oct-Jan), Belg (Feb-May) and Kiremt, the main rainy season (Jun-Sep) .

A thirty-year trend in mean annual rainfall shows a decrease in rainfall in eastern parts of Ethiopia, particularly in Somali, Dire Dawa and Oromia but also in parts of Tigray, Afar, Harari, Amhara and Benshangul-gumuz regions. During the period 1981–2000, there was a decrease in annual rainfall during the Belg season with slight increases during the Kiremt and Bega seasons. A decrease in mean annual rainfall from 1971–2010 of 3.6 mm per year was reported from the Southern lowlands. The mean annual temperature across Ethiopia has increased by 1.3°C between 1960 and 2006 at a rate of 0.28°C per decade. Future climate change is expected to include an increase in mean annual temperature of 1.1-3.1°C by the 2060s, and 1.5-5.1°C by the 2090s. This implies higher rates of evapotranspiration and soil moisture loss with negative impacts on productivity. Projections from climate models suggest an increased variability in mean annual rainfall , largely attributed to an increase in rainfall during Belg in Southern Ethiopia.

The impacts of past droughts and climatic changes have been particularly detrimental to Ethiopia's agricultural sector. For example, seven major droughts have occurred over the past 25 years, five of which have resulted in famine. Furthermore, Ethiopia has experienced six major floods since 1988. The number of flooding events and associated damages increased between 1996 and 2006. Ethiopia experienced one of the most severe droughts of the last 30 years brought on by El Niño events in 2015. The drought impacted on the livelihoods of ~10 million people and resulting food insecurity led the population to become reliant on humanitarian support through food aid. This has left 2.7 million people with malnutrition and 2.1 million without access to safe drinking water. In addition, the drought is causing losses to livestock and decreased agricultural production owing to crop failure. Declines in rainfall during Belg are reducing the extent and productivity of agricultural land, while increased frequency of droughts is resulting in reduced food security

following poor rainy seasons. The predicted decline in Belg rains in south-central and eastern Ethiopia are expected to reduce harvests and result in the reduced productivity of rangelands during the summer and early autumn .

Peri urban communities in Ethiopia face a unique set of climate vulnerabilities. Annual rates of urban population growth are about 5% and nearly a quarter of all Ethiopians live in urban areas . More importantly, three quarters of all urban Ethiopians live in informal and unplanned urban settlements . This exposes areas of high population densities to urban flooding during the wet season and heat islands in the warm season, contributing to numerous climate change related health risks . Their livelihood strategies involve farming in small plots and homesteads with income from un-organized labor, small businesses as well as jobs in the organized sector (Annex 9a), all of which are highly vulnerable to climate extremes.

A number of serious environmental challenges in Ethiopia are due to unsustainable use of forests and land, which further exacerbate the impact of climate change. Forest loss in Ethiopia is estimated to be about 85,000 ha a year, driven largely by small scale farm expansion, fuel-wood and charcoal demand. According to the CRGE Strategy, at current rates of exploitation of forests, between the period of 2010 and 2030, an area of 9 million ha might be deforested and annual fuel wood consumption will rise by 65%, leading to forest degradation of more than 22 million tonnes of woody biomass. Soil erosion and land degradation are among the largest challenges faced in terms of maintaining soil fertility and productivity of agricultural and range lands. The annual cost of land degradation in Ethiopia is estimated to be 2 to 3 % of agricultural GDP. It is also estimate that by the mid-1980s, some 27 million ha (about 50% of the Ethiopian highlands and 45% of the total land area) was considered to be significantly eroded, 14 million ha seriously eroded and over 2 million ha beyond reclamation. About 30,000 ha (1.5 billion tons of soil) are thought to be lost annually due to soil erosion and other land degradation processes. Large scale environmental degradation across large parts of Ethiopia is disrupting ecosystem processes and services. This process of degradation will be accelerated by climate change. Communities often rely on landscape level ecosystem services to cope with climate change thus creating a downward spiral of unsustainable and destructive use of resources and loss of resilience that natural systems provide.

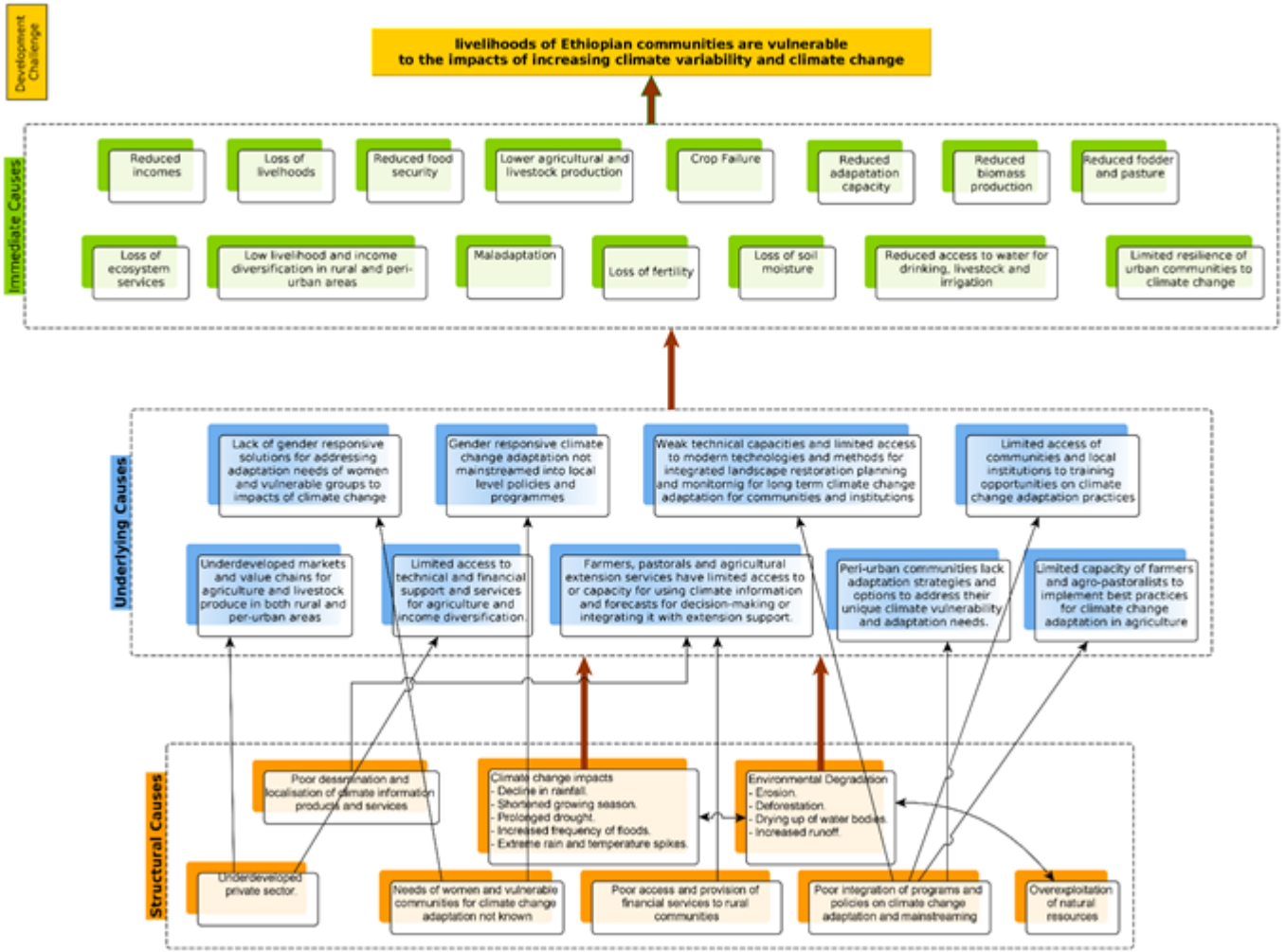

Figure 1. Problem Analysis.

The key problem the proposed LDCF project will address is that *livelihoods of Ethiopian communities are vulnerable to the impacts of increasing climate variability and climate change*. Livelihoods of the majority of the population are sensitive to climate-related shocks, especially droughts and floods because of the reliance on rain-fed agriculture and natural resources. Climate change is likely to exacerbate the impacts of degradation of the country's environmental resources, including arable land, water, pasture and forest, all of which are connected to Ethiopia's food and water security. Consequently, Ethiopian communities in both rural and urban settings will be impacted. About 8.13 million people in Ethiopia were considered food insecure and in need of urgent assistance by OCHA in 2018, with climate shocks, namely erratic rainfall in some areas and droughts in others considered the primary drivers.[1][1] This figure is presently (May 2020) revised to 7 million[2][2].

The impacts of weather variability and climate change differ across the diverse agro-ecological zones of Ethiopia owing to its varying topography, rainfall patterns and temperatures. These influence the livelihood patterns of communities and the level of exposure to climate related risk, both of which are highly variable even at small, local scales and within cities.[3][3] Changes in the weather patterns marked by greater variability are imposing additional risks to human development in Ethiopia. These risks are most heavily borne by farmers engaging in subsistence or rain-fed agriculture, including pastoral communities and landless households whose income largely derives from on-farm wage labour. Peri-urban communities face a unique set of climate change impacts related to environmental degradation coupled with lack of infrastructure from unplanned urban expansion. These include the urban heat island effect and heat waves, extreme events including temperature spikes, rain and wind[4][4]. Design parameters used for urban planning do not account for existing climate extremes, leading to extensive damage to infrastructure such as drainage systems, roads and buildings during extreme events, and increasing vulnerabilities and exposure of urban communities to risks from climate hazards. Ethiopia is grouped among countries which are the most sensitive and exposed to impacts of urban climate change yet have the lowest adaptation and coping capacities[5][5].

There are number of major barriers that need to be overcome for communities in Ethiopia to address the impacts of climate change and to reverse the cycle of environmental degradation, declining productivity and increasing vulnerabilities. This includes:

1. Lack of gender responsive solutions for addressing adaptation needs of women and vulnerable groups to impacts of climate change. This leads to the most vulnerable members of communities being bypassed in terms of understanding their adaptation needs and formulating and implementing strategies to address these needs. The proposed LDCF project will focus on gender-specific adaptation through site specific needs assessments leading to identification and prioritization of gender-responsive adaptation options. Capacities of woreda level agencies will be built in planning and prioritizing adaptation interventions and their implementation at the kebele, woreda and city level.

2. Gender responsive climate change adaptation is not mainstreamed into key policies and programmes at the local level. Key policies and programmes lack strategies that mainstream gender-responsive climate change adaptation in their on-ground implementation. There is limited exposure to approaches, tools and methodologies for selecting adaptation interventions that address unique needs of women and vulnerable groups and while remaining suitable to local level socio-economic conditions and environmental contexts. There is also a lack of gender-disaggregated, quantitative indicators which would enable the monitoring and reporting on CCA interventions. The project will provide a framework to measure the impact of on-ground activities in CCA related projects including mechanisms for feedback on activities and adaptive learning and management. This will improve the efficacy of projects aimed at addressing climate risks. At a national level, it will ensure the integration of climate change concerns into policies, strategies, plans and budgets for addressing Ethiopia's development needs.

3. Technical capacities and limited access to modern technologies and methods, especially in rural areas is a barrier to planning and implementation of integrated landscape restoration initiatives. This prevents communities from adopting long term climate change mitigation measures and reversing the impacts of environmental degradation which is a widespread challenge in Ethiopia. Modern technologies for mapping and monitoring are presently beyond the reach of communities and the local government institutions that support them. They often remain unaware of landscape level changes which lead to long term loss of ecosystem function and services. The LDCF project will help communities to leverage mobile ICTs to leapfrog communication bottlenecks and utilize modern, spatially explicit and participatory planning and monitoring technologies for integrated landscape level interventions which restore and stabilize ecosystem services for long term climate change resilience.

4. Limited access of communities and local institutions to training opportunities on climate change adaptation practices. Communities and local government staff have few avenues to seek support in the implementation of the CRGE strategy. There is a dearth of training programmes on integrated land management practices for climate change adaptation which are tailored to Ethiopia's complex climatic and agro-ecological systems. This project will develop training modules tailored to the project sites which encompass all regions in Ethiopia. It will thereby create opportunities for training and assist in mainstreaming activities under the CRGE strategy into decision-making and agricultural planning at the woreda level.

5. Limited access of farmers and agro-pastoralists to climate resilient crops and livestock and to climate smart agricultural technologies. Existing adaptation measures and traditional varieties of crops and livestock are inadequate for maintaining agricultural production under the current climatic conditions and will be further undermined under projected climate scenarios. The project will provide communities access and training on innovative agricultural practices and CSA technologies including strains of climate-resilient crops cereals, pulses and livestock including small ruminants. It will use the farmer-field based approach shown to be effective by earlier projects to demonstrate the application of established best practices. Market linkages will be established to enable communities to access such varieties and technologies as well as to sell their climate-resilient produce. Additionally, communities and entrepreneurs will be provided training and hand holding in establishing businesses along with economic incentives to ensure these practices are commercially sustainable.

6. Farmers, pastorals and agricultural extension services have limited capacities to access available climate information and forecasts and to use them for decision-making or integrating them with extension support. Ethiopian farmers, agro-pastoral and pastoral groups lack access to weather information and capacities to use forecasts, early warnings and a advisories to make decisions regarding alternative and innovative farming and agro-pastoral practices. Advances made in improving the quality of forecasts and advisories in Ethiopia do not necessarily translate in to on-ground dissemination in a form that is locally accessible and in a relevant language and context for end users. The LDCF project will help develop the Participatory Integrated Climate Services for Agriculture (PICSA) approach to suit the diverse agro-ecological conditions and needs of farmers, pastoral and peri-urban communities in Ethiopia. Government extension agents at woreda-level will receive training in the use of PICSA and its integration with tailored climate-smart agricultural practices.

7. Peri-urban communities lack adaptation strategies and options to address their unique climate vulnerability and adaptation needs. Rapid, often unplanned expansion of cities and towns coupled with climate change is leading to a number of challenges in peri-urban regions in Ethiopia including flooding, water scarcity and consequent social vulnerability. Urban and peri-urban areas are more vulnerable to extreme weather events such as temperature spikes which create heat islands in cities, and extreme rain events which cause extensive flooding, often accompanied by mud-slips damaging infrastructure and resulting in loss of lives. The project will work with citizens in peri-urban areas in improving access and use of climate information and long-term resilience building by stabilizing slopes, improving drainage systems and increasing green cover.

8. Underdeveloped markets and value chains for agriculture and livestock produce in both rural and peri-urban areas constrain farmers and pastoral communities from marketing, storage or value addition of products. Market linkages and value chains in rural and peri-urban areas remain underdeveloped in Ethiopia. This reduces the access of farmers and pastorals to markets, particularly during periods of stress due to drought or floods. The potential for agri-businesses and agri-processing related income

diversification is also limited as a result. In the rural kebeles targeted by the project, communities rely on a range of pastoral, agro-pastoral and mixed farming activities and, to a much lesser extent, activities typical of the peri-urban areas. Several barriers prevent most of the target beneficiaries (farmers/pastoralists/agro-pastoralists) from increasing and diversifying their sources of income, such as:

- Remote locations and poor logistics preventing access to end-markets or intermediaries (such as livestock fattening companies)
- Limited capacity to implement climate-resilient agricultural practices, such as the use of resilient seeds, small-scale irrigation and climate-smart agriculture
- Limited capacity to analyze and implement alternative activities across the agricultural value chain that diverge from those traditionally adopted in a certain area
- Limited access to finance

Leveraging on the experience of other projects in different areas of Ethiopia[6][6], the project will hire a team of agricultural and livestock value chain experts to build the capacities of local communities through a program structured around the following steps:

- Identification of value chains suitable to a community, based on criteria including: agroecological conditions, potential to generate an increase in income, financial resource requirements, market demand and contribution to nutrition, gender empowerment and climate resilience
- Analysis of the selected value chains through a participatory process, taking into account local constraints and a market and stakeholder analysis
- Strategy development for the implementation of the value chain
- Implementation
- Monitoring and evaluation

The project will focus on the identification of market-based solutions, i.e. value chains that are self-sustaining in a given area without perpetual use of concessional resources. Similarly, peri-urban areas fail to capitalize of available income generation opportunities. Peri-urban areas, representing about 83,894 beneficiaries in the target kebeles in Dire Dawa (14,850 beneficiaries), Harari (42,287 beneficiaries) and Addis Ababa (26,757 beneficiaries), are characterized by an economy reliant primarily on small trade, services and

construction. Livelihood diversification, in this context, means fostering the launch of new – and upscaling of existing – micro, small and medium enterprises ("MSMEs") as a way to: (i) increase income for local beneficiaries, (ii) create employment opportunities and (iii) create new opportunities for women and the youth.

Barriers to the launch and up-scaling of MSMEs, to be addressed by the project, include:

- Lack of business training, involving for instance: market and competition assessment, production of business plan, accounting and budgeting
- Limited financial literacy
- Limited ability of aspiring entrepreneurs to identify and effectively interact with capital providers (MFIs in particular)
- Prevalence of informal business practices, which compound the limited bankability of existing and prospective MSMEs

9. Limited access of communities to technical and financial support and services for agriculture and income diversification. Farmers and pastoral groups lack access to financial services and insurance which increases the risk and greatly limits their ability to invest in new technologies. Mechanisms for communities to access extension services, inputs and both technical and financial support to diversify incomes and livelihoods as adaptation measures are weak. Consequently, communities who have knowledge or have been trained to undertake restoration or livelihood diversification, have no means to initiate these activities or to sustain them. Similarly, procedures or frameworks to support entrepreneurs for micro and small enterprises in rural and peri-urban areas are poor. This severely limits access to mentors, financial services (credit, micro-finance, insurance) and markets. Inversely, there is no mechanism by which a master trader/entrepreneur can attract talent and find support and facilities to train and mentor would be entrepreneurs. The lack of technical knowledge also results in inappropriate or ineffective interventions. The project will connect communities with relevant financial service providers and will provide both a framework and support for identifying and incubating businesses of young and women entrepreneurs through mentoring.

2) Baseline scenario and associated baseline projects

Ethiopia has committed to achieving ambitious socio-economic goals that would see the country attain middle-income status by 2025. However, these socio-economic goals are being undermined by the observed effects of climate change which is expected to decrease food security and result in costs exceeding 10% of Ethiopia's GDP by 2045.[7][7] A World Bank assessment in 2008 estimated that economic growth could decrease by up to 2.5% per year unless capacity building and climate change adaptation measures are implemented.[8][8] Furthermore, climate change is expected to exacerbate Ethiopia's income inequality, affecting both rural and urban communities.[9][9]

Ethiopia's agrarian, pastoral/agro-pastoral and peri-urban communities have insufficient capacity to adapt to the effects of climate change. Consequently, Ethiopia is at risk of not achieving its socio-economic goals. The agricultural sector is particularly vulnerable to climate change,[10][10] with smallholder farmers and agro-pastoralists identified as being the most vulnerable of Ethiopia's population. Ethiopia's National Adaptation Programme of Action (NAPA) [11][11] identifies climate vulnerabilities that include inter alia: i) great dependence on rain-fed agriculture; ii) insufficient water resources; iii) low adaptive capacity; iv) insufficient institutional coordination; and v) limited awareness of climate change and adaptation. The proposed LDCF project is responsive to the NAPA priorities in that project activities will contribute towards greater food security as well as support diversification of livelihoods through promotion of: i) climate-smart agricultural practices; ii) improved irrigation practices; iii) improved catchment and rangeland management; and iv) diversified livelihood options.

The Government of Ethiopia is implementing the CRGE Facility which will act as the organising agency for climate change-related projects in Ethiopia. The proposed LDCF project will build on the baseline initiatives and programmes outlined below to strengthen the flexibility of design for resilience to climate change, capacity development in order to promote community-led initiatives and up-scaling.

The project will collaborate and consult with partners and baseline initiatives to ensure experiences and lessons learned are incorporated during implementation. Primary among these is the project "Promoting autonomous adaptation and the Community Level in Ethiopia" (PAA). Community based adaptive practices introduced during the PAA project will be up-scaled to additional woredas across the highlands and lowlands in 41 sites comprising of 32 rural and 9 peri-urban/urban kebeles and ketenas in 22 woredas/cities. These include various projects financed by the GCF under the LDCF and by other relevant agencies. There will be two levels of engagement, at the national level through formal

meetings and consultations by bringing them into the project technical steering committee, and at the woreda level, where coordination meetings with the woreda administration will also ensure activities are complementary supportive of on-going projects. These interactions will ensure that climate resilience activities are integrated with on-going initiatives and the project appropriately leverages available resources to catalyse and upscale activities.

This LDCF proposal draws upon lessons learnt in the projects and programmes summarised below, specifically to leverage established community-based organisations and institutional capital. Best practices which have been tried and tested have been integrated with proposed activities which will allow LDCF investments to scaling up past projects and leverage available resources to maximise the impacts. The baseline projects listed below are concurrent initiatives which address similar issues such as agricultural productivity, food security among the most vulnerable and restoration of watersheds and natural resources. They do not, however, integrate climate change into their strategy. The LDCF project will help move the baseline forward by providing a framework and strategy to integrate climate change concerns into these development initiatives.

Partnerships and collaborations refers to on-going projects which that seek to mainstream climate change adaptation and resilience building in communities by enhancing their adaptive capacities. The proposed LDCF project will collaborate, share knowledge and lessons with these initiatives to broaden its impact and the effectiveness of interventions. Coordination with these initiatives will ensure they do not overlap in terms of sites, even as they strive to compliment and scale-up best practices and lessons learned.Table 1. Baseline projects from which experiences will be drawn and cross learning and collaboration established with a brief summary. More details on relevant projects are available in Annex 13.

Sl.	Project/ Programme	Budget (million)	Funding Agency	Implementing Agency	Linkage to LDCF Project
	Baseline Projects				
1a	PSNP-4, 2017-2020	US$600.00	World Bank, DFID	WFP	The LDCF project will build synergies with the PSNP programme through the following additional activities that address climate related challenges not directly

1b	PSNP-5, 2021-2025	US$ 512.50	World Bank	Ministry of Agriculture	tackled by the PSNP: i) It will provide improved seasonal and short term climate information and train targeted communities and extension workers in its contextual interpretation and use (the PICSA approach).. ii) The work done under the PSNP under public works will be directed towards soil and water conservation measures and construction of water harvesting structures (Output 3 of the LDCF project), extending the impacts of both the projects by improving climate resilience through improved ecosystem services. Experiences and information gathered during landscape restoration planning and implementation (outputs under outcome 3) of the LDCF will inform the activities proposed under PSNP-5, enabling these interventions to be scaled up further. iii) Outputs under outcome 4 of the LDCF project will build on the value addition of products under the PSNP. The LDCF project will complement PSNP activities by focusing on value chains and markets for products that provide alternative sources for climate vulnerable groups and avenues to improve returns from agricultural products. iv) Finally, the fifth phase of the PSNP lays more emphasis on climate smart agriculture. Locally relevant climate change adaptation and resilience building activities with communities that are implemented under the LDCF project would facilitate faster and wider implementation of the PSNP further advancing the core objectives of the LDCF project, to sale up effective adaptation among most vulnerable communities.
2a	UPSNP, 2015-2021	US$ 300.00	World Bank	OSCD, UFS&JCA, MoLSA	The proposed LDCF project targets peri-urban communities in nine sites around Addis Ababa, Harari and Dire Dawa. The project will build on UPSNP work and integrate it into knowledge sharing to further strengthen community livelihoods. The project will also encourage any local public works to utilize the designs and plans to further enhance the extent of landscape restoration (Output 3.3) as in the case for PSNP.
2b	UPSNP, 2021-2025	US$ 400.00	World Bank	OSCD, UFS&JCA, MoLSA	

3	SAGP, 2015-2023	US$350.00	World Bank	Ministry of Agriculture (MoA)	The LDCF proposal, with its emphasis on climate smart agriculture, will build on the core objectives of the SAGP. Adding climate resilience through effective and localized use of climate information (Output 2.3) and climate smart agricultural practices (Output 2.4), and providing training to extension staff in relevant directorates (Output 2.1 and 3.1) would ensure the implementation of the SAGP results in not just improved agricultural productivity, but also improved resilience of agricultural production to climate change impacts.
4	RPLRP, 2015-2019	US$ 75.00	World Bank	MoA	The LDCF project will address a key gap in the SLMP/RLLP initiative by providing stronger integration of land use planning (outputs 3.2, 3.3) with climate risk information (outputs 2.2, 2.3). It will also build on gain from the experiences in scaling up watershed restoration approaches and integrating them with small scale irrigation and for increasing productivity of pasture and rangelands under future climate change scenarios. It will scale up work demonstrated under the RLLP to other regions and will replicate the strategy of Eengaging with youth in watershed restoration and accessing finance and exploring value chains from developing watersheds
5	ILM-EFSER, 2017-2021	US$ 10.34	GEF	MoA	This LDCF proposal draws upon lessons learnt in the project Integrated Landscape Management to Enhance Food Security and Ecosystem Resilience in Ethiopia. It will build on the ILM-ERSER through activities such as the participatory and contextual use of climate information by pastoral communities and a focus on drought resilient livestock and veterinary support. Restoration activities under the LDCF project will be designed specifically for drought resilience among pastoral communities. The project will leverage established community-based organisations and institutional capital where possible to enhance its impact.
	CALM, 2019-2024	US$ 500.00	IDF/World Bank	MoA	Relevant best practices for the proposed LDCF project include utilizing the existing government structures formulated under CALM for integrating and operationalizing LDCF project interventions. It will build on these interventions through activities that focus on “climate proofing” landscapes (output 2.4) and ensure their replication by building institutional capacities for integrated landscape management (outputs under outcome 3).
	Partnerships				

1	CSIRDP, 2017-2021	US$ 9.99 US$4.26	Adaptation Fund Government of Italy	MoA	The LDCF project will collaborate closely with the Climate Smart Integrated Rural Development project, avoiding duplication of sites while leveraging the enhanced capacities and scaling up the successes. These are particularly relevant in the area of landscape level integrated approaches where water harvesting is coupled with small scale irrigation and drinking water supply focusing on women.
2	RIRD, 2020-2025	US$ 45.003	GCF	MoFEC/EFCCC	The GCF supported project: "Responding to the increasing risk of drought: building gender-responsive resilience of the most vulnerable communities" has substantial similarities with the strategy and associated activities proposed with the proposed LDCF project. These include the combination of small scale irrigation with natural resource management and water harvesting and empowering of women in proactive roles in project implementation. Collaborations between the two projects will help further increase the impact of these strategies. Coordination mechanisms will therefore be established to ensure the synergies are exploited to maximize their respective impacts while avoiding duplication and overlap.
3	R4, 2018-2022	Euro 20.00	KFW/WFP	REST & ORDA	The LDCF project will collaborate with R4 Rural Resilience Initiative: Building Resilience to Climate Change for Long-Term Food Security and Livelihoods Improvement to explore the financial service providers in the two regions (Tigray and Amhara). The risk management strategy through micro-insurance couple with NRM and improved agricultural practices supported by improved access to finance are important strategies which will inform the proposed project.
4	Lowlands	US$5,836,073	GEF/LDCF	EFCCC	Key areas where the proposed LDCF can complement and collaborate with the Lowlands project are in the use of the PICSA approach which decentralizes the use of climate information for on-ground decision making by farmers. The proposedis LDCF project integrates mobile ICT and geospatial technologies with participatory, community based planning and monitoring, which could complement the Lowlands initiative. The landscape based approaches for long term resilience building is another area where the proposed LDCF project complements the Lowlands project. Lessons learned by the Lowlands initiative, will be adopted and used by the proposed project through collaboration and knowledge sharing between project teams. This coordination will also ensure the two projects complement each other and avoid any on-ground duplication of activities.

5	FOLUR, 2021-2028	US$ 20.342	GEF	EFCCC	The strategy of the project: Preventing Forest loss, Promoting Restoration and Integrating Sustainability into Ethiopia's Coffee Value Chains and Food System (FOLUR) on integrated landscape management reflects the third component of the proposed LDCF project. Formal links will be established during project implementation to coordinate activities. While none of the project sites are replicated, it will ensure cross-learning between the two projects.

3) Proposed alternative scenario with description of expected outcomes and components of the project

The objective of the proposed LDCF project is to promote the design and implementation of adaptation interventions to address the climate vulnerabilities of local communities at scale across Ethiopia. It will upscale successful experiences of GEF's community-based adaptation projects and apply integrated and innovative approaches for transformational impact. The project will build the resilience of vulnerable communities in Ethiopia in rural and peri-urban areas. The vulnerabilities that were identified and the barriers to effective adaptation are address through four inter-linked components, which together, support the scaling up of practices that have been tested in Ethiopia and other countries. The project has four, closely integrated components. The first focuses on institutional and technical capacity development leading to gender-responsive vulnerability and needs assessments and integration of climate information with extension support. This will ensure that in the long term, government agencies mainstream climate change adaptation in their programmes and projects at the woreda and kebele level. The second component facilitates access of communities to climate-smart technologies, which are critical for widespread adoption of on-ground, cost effective adaptation measures by communities. The project's third component supports institutional capacities to plan and implement integrated landscape management measures. These measures address the need for long term resilience by restoring and protecting ecosystem processes at the landscape scale. The fourth component addresses the need for innovation and private sector engagement in climate change adaptation to ensure financial sustainability of livelihood diversification and viability of alternative livelihoods. The component will link communities to financial services and by identifying and strengthening value chains that facilitate farmers and livestock owners' access to markets and provide opportunities for entrepreneurs' peri-urban communities to diversify incomes.

The project will result in the increased capacities of communities, government institutions and the private sector to use climate information and technologies to plan, design and implement effective adaptation. It builds on successes and experiences from past projects and effective collaboration and coordination with on-going initiatives. By embedding the project in established national, regional and local level institutional structures and processes, and by linking communities to markets and value chains, the project not only facilitates sustainability but scaling up as well. The project will leverage new, mobile ICT based spatially explicit technologies to streamline planning, monitoring and reporting and to allow communities, specifically women and vulnerable groups to actively participate and lead project implementation.

The proposed LDCF project aims to build community self-reliance so that dependence on the State for adaptation resources is reduced as communities tailor adaptation technologies and techniques to their own needs. Self-reliance will be promoted through training that focuses on gender-responsive adaptation specific to the local socio-economic and environmental contexts. Furthermore, the proposed LDCF project will focus on training-of-trainers for decision-makers within woredas and cities, ensuring both sustainability and replication of adaptation interventions in communities. This approach comprises of i) strengthening institutional and technical capacities in the use of GIS and mobile ICT technologies for gender-responsive planning, investments and coordination of policies and programmes; ii) building capacities of communities in using forecasts and innovative technologies for climate smart agriculture and cost effective adaptation and resilience building; iii) leveraging spatial technologies to plan, implement and monitor integrated

landscape restoration and management that help restore ecosystem function and services for long term resilience and iv) attracting private sector involvement in both rural and urban/peri-urban areas by capitalizing on available income generation opportunities, nurturing entrepreneurship and building partnerships with financial services and businesses that help diversify livelihoods, add value to agricultural produce and strengthen market linkages. The Theory of Change diagram is included in the Prodoc.

The project, through the use of integrated and participatory approaches, will address immediate adaptation needs and build long term resilience of communities to climate change in rural and peri-urban areas of Ethiopia, including farmers, pastoral and agro-pastoral groups. The project will build on best practices that have been successfully tested in the specific context of Ethiopia. It will also ensure the process of up-scaling best practices is sustained and extended by investing in capacities of government agencies at the ground-level and by mainstreaming gender responsive climate change adaptation into their programs and projects. The emphasis on integrated landscape level interventions will ensure that both national and regional agencies leverage emerging spatial and mobile information and communication technologies to efficiently plan and implement restoration and protection of ecosystem services for long term resilience.

The project will directly benefit 225,000 persons in 41 kebeles and ketenas, from 22 woredas and 11 regions/cities of Ethiopia that are highly vulnerable to climate change. 6,450ha of land including about 2,000 ha of land under agriculture and agro-forestry, 4,000 ha of scrub-grassland landscapes and 450ha of peri-urban landscapes will be brought under climate-smart agriculture and landscape restoration measures. About 18,000 persons will receive training and capacity building during the course of the project. Most of these will be community members and grassroots level technical staff at the kebele and woreda level.

Component 1: Institutional and technical capacity development for coordination and climate mainstreaming

Outcome 1. Strengthened regional and local institutional and technical capacity for coordination of climate resilient planning and investment

This component will embed climate change adaptation in the local institutional structures and processes to achieve a systemic impact. It will ensure specific adaptation practices, technologies and climate information are part of development business. Institutional and technical capacities for planning, monitoring and evaluating climate change adaptation for farming, pastoral and agro-pastoral sectors will be strengthened. Participatory, gender responsive adaptation plans will be developed for 22 woredas based on a comprehensive, site-based vulnerability analysis. The component will also establish coordination mechanisms in project woredas for mainstreaming climate change adaptation into projects and programmes of the government and other agencies.

Component 2: Access to climate-smart technology

Outcome 2. Access to climate-smart technologies and practices for cost-effective adaptation is enhanced

This component will result in the implementation of climate change adaptation plans to adopt cost effective climate smart technologies, livelihood diversification and integrated landscape restoration. These plans will be implemented across 41 kebeles reaching 225,000 beneficiaries. The component will result in improved access to climate-smart technologies and practices that improve the range and efficiency of adaptation and have been successfully demonstrated in earlier projects. A "training-of-trainers" approach combined with field demonstrations and participatory development of gender responsive adaptation plans will result in selection of locally suitable adaptation technologies. Communities, supported by woreda extension and technical staff, will undertake livelihood diversification and implement climate smart agriculture measures such as adoption of improved varieties and crop diversification based on lessons from prior projects. Extension staff will be trained in the use of climate advisories and forecasts to inform the selection of appropriate adaptation measures. This will result in informed decision-making by local-level government staff as well as vulnerable rural communities on action to reduce their exposure to climate change impacts and to guide their day-to-day agricultural activities. Integrated landscape restoration along with appropriate management arrangements will be put in place ensuring long term resilience building. This will include soil and conservation measures and water harvesting structure combined with small scale irrigation and drinking water installations in agricultural and pastoral sites. Project activities will link farmers to markets, enabling them to fetch better prices for their products to make the adaptation interventions more holistic and integrated. Partnerships with the private sector including local entrepreneurs will be established making agricultural value chains resilient and to facilitate the supply of technologies for adaptation such as solar powered irrigation pumps and climate resilient seed varieties.

Component 3: Integrated landscape management

Outcome 3. Community and institutional capacity for integrated landscape management

Lessons from earlier and on-going initiatives will be used to train and build capacities in integrated landscape planning across the project sites. This will lead to the development of participatory and integrated land use and management plans for 6,450ha of agricultural, pastoral and peri-urban landscapes. Technical staff at the woreda and regional level will be taught the use of participatory GIS and tools and techniques such as drones and mobile ICT assisted surveys. Hands on training will be conducted by experts in these techniques from local academic institutions and NGOs. Communities will be mobilized to form watershed development teams and will participate in formulating landscape management plans which are then used to guide the activities proposed in component 2 above. Detailed, field-based guidance manuals will enable replication of similar plans in other kebeles and woredas. This component will ensure cross-learning by linking with the GEF supported FOLUR initiative in Oromia and SNNP where similar activities are proposed (in different sites). The component will use existing or set up new platforms for integrated landscape management, with each platform including stakeholders from

different woredas. Spatially explicit and mobile ICT enabled technologies will result in the creation of participatory and interactive maps of landscapes and a framework for planning, implementing, managing and monitoring restoration activities at a landscape scale. Documentation from the lessons learned will feed into integrated landscape management for climate resilience for wider use by government institutions working at local level.

Component 4: Livelihood diversification

Outcome 4. Gender-responsive options for alternative livelihoods transferred to community to build resilience and reduce climate change vulnerability

This component will result in the adoption of livelihood diversification and income generation activities by 1,500 women, youth and vulnerable sections among rural and peri-urban communities. Market value chains and links to financial services will be established and used by 6,500 farmers, pastoral and peri-urban entrepreneurs. The private sector strategy implemented under the component targets beneficiaries in peri-urban woredas/kebeles, on one hand, and rural ones, on the other. It will build capacities in and support tailored interventions that reflect the existing composition of economic activities in those areas. In peri-urban kebeles, where inhabitants rely primarily on small trade, services and manufacturing livelihoods, the private sector strategy focuses on the set-up of "incubation centers" where entrepreneurship trainings will be conducted, targeting in particular aspiring women and young entrepreneurs. The training programs will cover the following areas: (i) assessment of market potential and business plan development; (ii) practical accounting and budgeting concepts and tools; (iii) basic financial literacy; (iv) identification of local sources of funding (e.g. MFIs), explanation of eligibility criteria and funding process; and (v) connection to sources of funding and facilitation of dialogue. All the activities in this component support the on-ground adaptation and resilience building of communities and build on the feasibility study of the role of the private sector.

4) Alignment with GEF focal area strategies

The proposed LDCF project is aligned with the following outcomes of the GEF focal area objectives:

CCA-1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation. The proposed LDCF project will support adoption and upscaling of international best practices as well as indigenous knowledge concerning climate-smart technologies (Output 2.4). In addition, it will provide training to farmers on climate-smart agriculture, complemented by the promotion of climate-smart agriculture in selected woredas (Outputs 2.1 and 2.2). It will also diversify the livelihood options of beneficiaries that will build their adaptive assets (Outputs 4.2 and 4.3). Using the integrated landscape management approach, the project will support building of the natural assets key to adaptation (Outputs 3.2. and 3.3).

CCA-2: Mainstream climate change adaptation and resilience for systemic impact. The proposed LDCF project will promote the use of tools and methodologies for planning and implementing adaption measures (Output 1.1) as well as ensuring that climate change adaptation is integrated into local and national plans and programs (Output 1.2). It will also conduct training-of-trainers on the use of innovative adaptation technologies to enhance technical capacity for implementation of adaptation measures (Output 2.1). In addition, the project will train local communities and institutions in integrated landscape management (Output 3.1) and to develop viable alternative livelihood options (Output 4.1).

5) Incremental/additional cost reasoning and expected contribution from the baseline.

Predicted impact of climate change in Ethiopia will seriously undermine the development ambitions. Nearly 90% of its population relies on agricultural and natural resources for livelihood. These livelihoods are certain to be harmed unless communities adopt sustainable strategies to mitigate and adopt scientific measures to adapt their livelihoods to chaining climate and its impacts. The present trajectory of environmental degradation in Ethiopia is driven by climate change and unsustainable coping strategies of communities who turn to exploit available resources as crops and livestock fail to sustain livelihoods and provide gainful employment.

Failure to address the barriers described earlier is likely to lead to exacerbate and accelerate the present environmental crisis and push communities in Ethiopia further into poverty and food insecurity. Women and vulnerable groups including children, elderly and internally displaced people are likely to face the brunt of this crisis which is becoming more and more intractable as the resource base depletes and degrades across vast swaths of the country. Ethiopia currently faces among the highest levels of deforestation and land degradation in sub-Saharan Africa and urgent steps are needed to arrest and reverse this process.

Without GEF support, government programmes will not adequately address climate related risks and vulnerabilities, particularly for groups such as women, children and elderly. On the other hand, GEF investments will complement ongoing government programmes and systematically address crucial gaps and barriers by mainstreaming climate change adaptation and resilience building. GEF support will improve the effectiveness of agricultural and livestock extension services. It will support the natural resource management efforts of the government by bringing in crucial elements of integrated, climate resilient planning and assist development programmes to adopt climate resilient practices that are informed by localised and tailored climate and weather information and forecasts. GEF support will ensure the nascent private sector is given a much needed impetus to develop and exploit available opportunities in effective dissemination of climate information, supply of goods and services for climate smart agriculture and climate proofing infrastructure such as small scale irrigation. Markets which remain under-developed on account of poor organisational capacities of agricultural and pastoral communities will be developed by the GEF project, improving incomes and financial sustainability of rural communities. Peri-urban communities, without GEF support, are likely to remain neglected in meeting

their unique climate adaptation and impact mitigation needs. The project will not only identify and address these needs but also will help these communities diversify income through supporting entrepreneurship among women and youth. There are few alternative sources of funds available to Ethiopia to address the additional costs that climate change imposes on its development pathway. GEF, with its support can help address gap.

Component wise cost reasoning and additionality is provided below:

The total additional costs of adaptation benefits in Component 1 are estimated at $6,900,000.

- GEF LDCF grant request: $800,000.
- Co-financing form baseline projects: $6,100,000

The additionality for component 1 and output 1 concerns the strengthening of the institutional framework and implementation arrangements with specific emphasis on building capacities of government stakeholders in the grassroots in gender-responsive, bottom-up and participatory climate change adaptation planning. Application of best practices will ensure compliance with international social and environmental standards while leveraging mobile ICT for responsive, efficient and transparent monitoring of project activities.

The total additional costs of adaptation benefits in Component 2 are estimated at $ 49,557,067

- GEF LDCF grant request: $4,557,067
- Co-financing form baseline projects: $ 45,000,000

The additionality for component 2 and outcome 2 lies in enhanced capacities to support on-ground adaptation interventions paired with direct support to communities for their adoption. This includes localised and contextual interpretation of climate information and advisories to inform adaptation decision among agricultural, pastoral and peri-urban communities. Market linkages and private sector involvement in income diversification and value addition will be a key intervention that will be coupled with implementation of best practices in climate smart agriculture and integrated landscape management.

The total additional costs of adaptation benefits in Component 3 are estimated at $ 11,400,000

- GEF LDCF grant request: 1,000,000.

•Co-financing form baseline projects: $10,400,000

The additionality for component 3 and outcome 3 lie in the use of mobile ICT and IoT technologies in combination with participatory planning for integrated landscape restoration and management. The strategic use of modern technologies and participatory frameworks will enable communities, including women and marginalised groups, to design and plan the implementation of landscape restoration and management thereby ensuring long term resilience against climate change. Transfer of these technologies to local extension and development agencies will facilitate their application in other regions – leading to the development of comprehensive, spatially explicit and participatory management plans at the landscape level.

The total additional costs of adaptation benefits in Component 4 are estimated at $ 12,450,000

•GEF LDCF grant request: 2,150,000

•Co-financing form baseline projects: $10,300,000

The additionality for component 4 and oucome 4 is the comprehensive integration of the private sector and market value chains in climate change adaptation interventions. Capacity development and start-up capital and material support to women and youth within the community will be combined with hand holding via incubation of business ideas, transfer of business skills and leadership and linkages with financial services. This will prioritise alternative income generation livelihoods and connect farmers and pastorals with markets and value chains.

6) Adaptation benefits.

The proposed LDCF project seeks to scale up successful approaches and enhance adaptive capacities of communities across the country and its ecologically and culturally diverse regions. GEF funds will be utilised effectively and strategically by:

1. Investing in proven technologies and approaches which can be taken up quickly by government agencies without expensive and time-consuming piloting and trial.

2. Leveraging mobile ICTs to bridge and connect rural communities with markets and value chains and supply of information, services and materials thereby facilitating private sector involvement and sustainability.

3. Utilising modern spatial technologies and computer and mobile assisted survey methods to design, plan, monitor and report on project interventions and impacts - greatly improving the transparency and efficiency of project implementation.

4. Ensuring empowerment and representation of vulnerable communities and groups, particularly women, through participatory approaches, targeted mobilisation and raising awareness.

5. Intervening in key areas that stabilise and support income generation, productivity of agricultural and pastoral systems and long-term restoration of ecosystem services.

6. Provide communities access to climate services which can be used in a local context and integrated with traditional knowledge and practices along with modern climate smart agricultural technologies.

Project interventions, through its four components will benefit communities from 22 woredas and 41 kebeles across all the regions of Ethiopia benefiting from on-ground implementation of adaptation and climate change mitigation measures. Other than the 225,000 direct beneficiaries (115,445 female, 109,555 male), a conservative figure of about 466,508 indirect beneficiaries (230,577 female, 235,931 male) will gain from the project. Over 18,248 persons (6,083 female, 12,165 male) will directly receive training of which about 20% will be government and technical staff from NGOs who will be in a position to replicate activities to other kebeles and woredas. Close integration of the project strategy with government policies and programmes will ensure climate mainstreaming in local, regional as well as national programmes. The outreach and knowledge management strategy of the project will further facilitate its replication and expansion to other woredas, and lessons learned will be shared in national, regional and international fora. The project will restore and sustainably manage 6,450 ha of rangelands, farmlands and erosion and flooding prone peri-urban areas, for long term resilience and to serve as a nucleus around which communities will undertake additional restoration measures.

7) Innovativeness, sustainability and potential for scaling up.

The proposed LDCF project activities seek to make innovative use of climate information through participatory and integrated approaches developed and implemented with farmers, pastoral groups and peri-urban communities, ensuring that state of the art climate information is used to guide their day to day decisions. The project will employ participatory technologies which leverage GIS and mobile ICT and techniques for planning, management and monitoring of project interventions. This will streamline the process of data gathering and sharing while ensuring transparency and active participation of communities. The project will design a framework and build capacities of woreda level agencies to adopt landscape planning tools and indicators for monitoring activities and their impacts. Innovative technologies will also be scaled up to address site specific needs including fuel efficient stoves, treadle pumps and alternative energy based solutions to power micro-irrigation, effective use of geo-textiles and low cost gabions for soil and water conservation and for interventions in income diversification where modern bee keeping methods and techniques for raising small ruminants have been proven successful. Climate

smart agricultural practices will involve use of synergistic, low cost techniques replicated through hands-on, farmer field school-based approaches and long-term resilience building through landscape restoration, soil and water conservation coupled with small scale irrigation and drinking water. The use of climate-smart technology and agricultural practices will be novel to communities in the project sites.

The project will exploit available opportunities to integrate the private sector in dissemination of adaptation technologies. Extensive engagements with the private sector, capacity building of communities and the creation of enabling conditions for entrepreneurs among youth and women will be ensured. Five "incubation centers" in target kebeles of peri-urban areas will be set up and equipped to provide a facility for launch of new - and upscaling of existing - micro, small and medium enterprises. It will build on the model of the UNDP-funded Entrepreneurial Development Center (EDC), and provide a series of entrepreneurship training sessions to aspiring and growing micro-small entrepreneurs in the peri-urban sites. Specific activities aimed at maximizing the effectiveness of this intervention, include, in addition and as a complement to the set-up of the 5 incubation centers: development of entrepreneurship training materials with focus on women and youth; 50 entrepreneurship training programs for women and youth over 2 years, with focus on business plan, budgeting and financing; identification of specific value chains and MSME activities with potential for further development in a given kebele; conducting training to build technical and business capacities of pastoral/agro-pastoral/farmer community facilitators (training-of-trainers approach); providing follow-up "problem-solving" assistance 6 and 12 months after completion of capacity building; organizing business idea contests for participants in the entrepreneurship and value chain training (1 per kebele); identifying private sector stakeholders and finance providers to connect to trainees during business idea contests; and providing one-on-one business development support to entrepreneurs who win business idea contests. The incubators will help prospective micro-entrepreneurs explore novel approaches to traditional businesses, including the use of affordable mobile and online technologies for marketing (e.g. via chat services) and payments (including mobile payments). Lessons learnt and examples of innovative businesses from other parts of Africa with successful start-up ecosystems will be shared. Trainings will include sessions focused on the use of the latest mobile technologies to promote the growth of a business as well as reduce costs and establish a seamless system for supplier and customer payments. In addition, it is expected that a meaningful portion of the microentrepreneurs participating in the incubation program will be youth with knowledge and expertise in the tech sector who aim to start or scale-up innovative tech businesses.

The project will also support identification and application of innovative approaches to climate change adaptation for inclusion in planning by both local communities and government decision-makers. It will introduce landscape level integrated management methods that go beyond specific farm level practices thereby building larger scale resilience. The innovative use of spatially explicit and participatory technologies mentioned above, will enable multiple stakeholders to directly interact with each other and visually understand their environment for better decision making. Finally, the project proactively involves the private sector and civil society in the delivery of its outcomes.

Scaling up of the project will be achieved by ensuring ownership of the project and its activities lie with the communities, government and local authorities and ensuring wider participation by different stakeholders who will continue operating in the project areas beyond GEF funding. The project management structure has been designed to ensure ownership even after project funding, by using and strengthening existing institutional structures. This will ensure continuity and project activities will be aligned to existing plans and programmes especially at the woreda level so that they are part of long-term strategies. Similarly, community and farmer level interventions will be aligned with the needs of the beneficiaries so that they are part of the community and household livelihood strategies. In its mainstreaming efforts, the project will promote the inclusion of climate adaptation activities and integrated use of climate information in the work of extension workers. The tools for monitoring adaptation will be integrated with monitoring tools of local institutions. In the same manner, the monitoring tools of line ministries operating at higher levels (zones and regions) will be reviewed to include climate change adaptation, especially those in agriculture. The involvement of the private sector and the building of local business skills will ensure the project interventions will be sustained beyond the external financing of the project.

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[1] Food Security Information Network (FSIN), “Global Report on Food Crises 2019.”

[2] https://www.unocha.org/ethiopia

[3] UNDP, “Climate Change Adaptation Growth.”

[4] Revi, Aromar et al., ‘Chapter 8: Urban Areas’.

[5] Garschagen and Romero-Lankao, ‘Exploring the Relationships between Urbanization Trends and Climate Change Vulnerability’.

[6] For instance, the USAID-funded, CARE-led GRAD II project (Feed the Future Livelihoods for Resilience Activity), a component of which, dedicated to value chain development, is being implemented by Dutch NGO SNV.

[7] National Planning Commission, “The Growth and Transformation Plan (GTP) II- Volume I.”

[8] Kenneth Strzepek et al., “Ethiopia - Economics of Adaptation to Climate Change.”

[9] Mideksa, “Economic and Distributional Impacts of Climate Change.”

[10] Shepherd et al., The Geography of Poverty, Disasters and Climate Extremes in 2030.

[11] Ministry of Water Resources and National Meteorological Agency, “Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia.”

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

The project will take place in 41 kebele and ketena located in 22 woredas two each in all eleven regions of Ethiopia. Kebeles correspond to groups of villages or a ward while ketenas correspond to peri-urban settlements or villages. The list of sites along with their coordinates are provided in the table below. The site map is provided in Annex E.

Region	Woreda/Town	Kebele/Ketena	Male	Female	Total
Addis Abeba	Gullele	Chefe Meda Ketena	6,338	6,227	12,565
Addis Abeba	Yeka	Demeka Ketena	2,396	2,853	5,249
Addis Abeba	Yeka	Happy Village Ketena	3,953	4,990	8,943
Afar	Argoba Liyu	Chisa	1,721	1,568	3,290
Afar	Arogba Special	Gachine Town	1,703	1,549	3,252
Afar	Awura	Debel	1,382	1,229	2,611
Afar	Awura	Leykuma	1,214	1,078	2,292
Amhara	Quarit	Asheti Leba Gedel	3,904	5,421	9,325
Amhara	Quarit	Wey Beyign	3,046	3,209	6,255
Amhara	Sede Muja	Desemne	2,763	2,618	5,381
Amhara	Sede Muja	Mendel Amba	3,673	3,533	7,206

Benishangul Gumuz	Guba	Babi Shenkor	641	575	1,216
Benishangul Gumuz	Guba	Tanguto	986	928	1,914
Benishangul Gumuz	Sherkole	Gemed Metsimetsinare	1,412	1,361	2,773
Benishangul Gumuz	Sherkole	Sherkole Belmiyo Tenze Goja	1,984	1,913	3,897
Dire Dawa	Kebele 06	Kefira Ketena	3,600	3,264	6,864
Dire Dawa	Kebele 09	Ketena 2	3,229	4,757	7,986
Gambella	Jore	Olan	561	865	1,427
Gambella	Jore	Ogngne	1,757	1,769	3,527
Gambella	Makuey	Konde	629	671	1,300
Gambella	Makuey	Nginngang Town	1,755	1,793	3,548
Harari	Erer	Erer Hawaye	4,899	4,480	9,378
Harari	Erer	Erena Weldya	6,446	5,895	12,341
Harari	Jenile	15	4,203	5,749	9,951
Harari	Jenile	16	4,802	5,815	10,617
Oromiya	Goro Gutu	Burika Ela	4,585	3,561	8,146
Oromiya	Goro Gutu	Nedi	2,713	3,543	6,256
Oromiya	Gursum	Abadir	4,278	3,982	8,260
Oromiya	Gursum	Misira	870	1,318	2,188

SNNP	Kedida Gamela	Degakedida	822	900	1,723
SNNP	Kedida Gamela	Fulasa Deketa	562	615	1,176
SNNP	Wera Dejo	Negele Wedesh	1,879	2,066	3,945
SNNP	Wera Dejo	Tetali Bitora	944	1,022	1,967
Somali	Gode	4	3,646	3,225	6,871
Somali	Gode	7	4,030	3,564	7,594
Somali	Harshin	Arara	2,219	2,560	4,779
Somali	Harshin	Qudhac Ramole	2,712	3,271	5,983
Tigray	Gulo Meheda	Marta	2,928	2,989	5,917
Tigray	Gulo Meheda	Sebiya	4,142	4,321	8,464
Tigray	Lailay Mayichewu	Miha	1,542	1,604	3,147
Tigray	Lailay Mayichewu	Welel	2,686	2,793	5,479
Total	**---**	**---**	**109,555**	**115,444**	**225,000**

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

n/a

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities

If none of the above,please explain why: No

Please provide the Stakeholder Engagement Plan or equivalent assessment.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

A Stakeholder Engagement Plan is included in the Prodoc Annex 9. This will be updated during the project inception phase by the Project Manager with the assistance of a consultant to be recruited. Stakeholders will be consulted throughout the project lifecycle in order to ensure their meaningful engagement in the design, planning, implementation and monitoring of activities. Adequate resources have been allocated to respective activities to ensure this.

Awareness generation and mobilisation of communities, particularly women and vulnerable groups will precede all implementation activities. The latter will specifically involve leadership training to women and youth to empower them to participate as members and leaders of user groups and committees formed as part of the project. This includes farmer and pastoral groups committees and federations for climate small agriculture (activities 2.2.2 and 2.4.2) livelihood diversification groups (activity 2.4.1), water user groups for small scale irrigation (activity 2.4.3) and integrated landscape restoration (activity 3.2.2). These committees and groups will participate in the identification of the most vulnerable members of their respective interest groups as well as selection of trainees to benefit from the entrepreneurship training and hand holding envisaged in output 4 of the project.

The first year of the project will focus on fine tuning interventions identified during the PPG based on a site specific, gender-responsive vulnerability and climate adaptation needs assessment (activities 1.1.1 and 1.1.2). Participatory and rapid rural appraisal methods including GIS and mobile ICT enabled tools will be used to gather gender disaggregated information from communities. Communities will be involved in participatory planning and design of gender action plans for adaptation and disaster risk reduction (activities 1.2.1, 1.2.3 and 1.2.4) and in integrated and landscape level restoration planning (activity 3.2.1).

The implementation phase of the project (years 2 onward) will involve communities in actualising these plans with the help of trained government staff by up-scaling livelihood diversification (2.4.1), adopting climate smart agricultural practices (2.4.2), installing small scale irrigation and drinking water facilities (2.4.3) and restoring catchment areas for long term climate change resilience (2.4.4). Communities will be facilitated, and their capacities built to incorporate climate information in decision making (activities 2.2.1, 2,2,2, 2.3.2 and 2.3.3).
The project will also ensure communities are provided real and meaningful representation on multi-stakeholder platforms for coordination of climate change adaptation (activity 1.3.2) and integrated landscape management and planning (activity 3.2.4).

Monitoring and reporting of project activities will be highly participatory. Easy to use, quantitative and gender responsive indicators will be developed specifically for this purpose (activity 1.1.2). Communities will be engaged directly in monitoring and evaluation of project impacts such as the use of climate information (activity 2.2.1) and landscape restoration (activity 3.1.2). Committees and user groups will be an integral part of the monitoring frameworks for the project, which will leverage mobile ICT, participatory mapping and drone-based visualisation combined with GIS technologies (activity 2.4.1 to 2.4.4).

Mechanisms to ensure meaningful community engagement include a process of validation of all implementation plans by communities (activity 3.2.4) and bi-annual meetings will be held at each woreda in which community representative attend so they may weigh in on integrated, landscape planning processes (activity 1.3.2).

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes
Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes
4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

The private sector engagement strategy has been elaborated in Section 3 of Annex 13. A summary is provided below.

The private sector plays a key role in the project by facilitating the dissemination of adaptation technologies, improving the reach of climate information to end users and adding value as well as improving access to markets for agricultural produce from vulnerable communities. This will be enabled by site specific feasibility studies (activity 2.5.1) which precedes and will inform the on-ground implementation adaptation measures proposed in the second and third component of the project. The fourth component of the project addresses the need for innovation and private sector engagement in climate change adaptation to ensure financial sustainability of livelihood diversification and alternative livelihoods. The component will feed into activities in both component 2 and 3 by linking communities to financial services and by identifying and strengthening value chains that facilitate farmers and livestock owners' access to markets. The private sector will proactively be involved in dissemination climate information (activity 2.3.1) and facilitate the adoption of adaptation technologies through supply of materials, equipment and services pertaining to activities such as small scale irrigation and drinking water supplies (activity 2.4.3) and by capitalizing on available income generation opportunities. The latter will be achieved by attracting private sector involvement in both rural and urban/peri-urban

areas, nurturing entrepreneurship and building partnerships with financial services and businesses that help diversify livelihoods, add value to agricultural produce and strengthen market linkages.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Risks and mitigation measures identified through the Social and Environmental Screening process are presented summarised in Annex 6 -– SESP and in the risk register (Annex 7) along with budgeted activities that mitigate or address these risks in a pre-emptive fashion. A more detailed discussion on the risks and their management and mitigation is provided in the Environmental and Social Management Framework (ESMF, Annex 10).

This procedure has been adopted even though the project has been rated as moderate risk, owing to the potential for un-anticipated risks emerging during implementation. These risks lie largely in the potential for exclusion of women and marginalised groups who broadly fall under the broad definition of indigenous peoples.

A summary of risks identified, and the respective mitigation and management measures is provided below.

#	Risk, Impact	Risk Treatment / Management Measures

1	Administrative capacities with the implementation partner remain limited and could delay project implementation.	An assessment of the capacities at the EFCCC has been undertaken through the HACT Assessment and Partner Capacity Assessment Tool (PCAT), which identifies areas where capacity will be provided (Annex 17). The UNDP will support the Implementing Partner as part of its overall development assistance to Government to ensure that they have implementation capacity. UNDP will build the capacity of the EFCCC for project implementation. This includes assistance in recruitment of technical staff and firms with specialized skills and procurement of goods and services which require foreign exchange. The UNDP will continue to assist the PMU and Implementing Partner in all administrative tasks until after the mid-term after which it will be handed over to the EFCCC. This will be done through UNDP's own resources not budgeted under this project, in the form of training programs and policy interventions at the level of the Ministry of Finance to help remove bottlenecks in procurement systems. This support will be done while ensuring there is a firewall between capacity support and UNDP's oversight role in the project. Regional and woreda teams will be provided training in specific organizational and coordination roles as part of project implementation (Activity 1.3.1) ahead of on-ground activities to ensure smooth implementation.
2	Private sector involvement in project activities may be limited as the sector is under-developed in many regions	EFCCC will closely cooperate with the Ministry of Finance, Ministry of Trade and Development, Chamber of Commerce, Ethiopian Investment Commission and other relevant institutions to support the development of an enabling environment for private sector investment by engaging for e.g. in a public-private sector dialogue to identify barriers for private sector development in climate adaptation and related value chain investments, risk sharing and averting mechanisms. During the development of the project document and validation workshop, thorough discussions have been held with private sector representatives including private insurers, entrepreneurship development centers, MSMEs and micro-credit institutions. The representatives have assured the project of providing the necessary resources and support during project implementation.

3	Duty bearers, staff may not have the technical capacity to effectively discharge their duties and obligations to the project. Technical officers at the woreda level and kebele level development agents, council and committee members will play a key role in project coordination and implementation. However, woreda level agencies face challenges in terms of human resources and capacities. Staff may be unfamiliar with managing and coordination of project activities which utilise a participatory framework to build capacities of communities in implementing new adaptation technologies. In many cases, there is no prior experience among woreda staff in implementing such projects. This translates into the following risks: i) poor coordination of on-ground activities which may result in delays and inefficiencies in implementation of time-bound interventions (e.g. supply of drought tolerant seeds ahead of the growing season); ii) inadequate mobilisation of communities leading to low participation, particularly of women and more vulnerable groups and iii) weak training and extension services leading to low adoption of the technologies and frameworks for adaptation. Lack of administrative and logistic capacities at both Federal as well as regional and local government level may lead to i) delays and inefficiencies in procurement and supply of materials to project sites and beneficiaries; ii) inadequate or improper monitoring and reporting of both financial and physical interventions. This risk is increased by the limited supportive role the UNDP is allowed to play in the procurement of staff, consultants, equipment and materials.	The government will appoint a full-time project management team which comprise of highly trained and motivated professionals with expertise in both the administrative, social as well as the technical aspects of the project. This will include a project manager, a gender officer, a monitoring and evaluation officer and a safeguards officer. Additionally, a lead technical advisor with expertise in climate change adaptation technologies and climate smart agriculture will support the project throughout its lifecycle. Furthermore, the project will appoint known experts from both national and international agencies who will support the project management unit in building capacities of relevant government agency staff which will continuously be monitored and upgraded/refreshed throughout the project period (details of professional consultants and ToRs in Annex 8 and 20). Government agency staff, particularly at the woreda and kebele level will be provided training and support to integrate climate change adaptation with their existing workflow (outputs 1.1 and 1.2). This will ensure that all interventions undertaken during the project are integrated with existing responsibilities of staff, as opposed to adding additional workload. The woreda administrative officer will appoint a focal person for the project (output 1.3) who, along with other technical officers from the woreda, will receive training in coordination, administration and mainstreaming project activities with existing programmes and projects of the government. Hands on training of trainers and refresher courses will also be provided prior to on-ground implementation to ensure woreda and kebele staff are equipped to effectively manage and implement project activities (output 2.1 and 3.1). These measures will ensure that technical staff and agencies are well equipped to effectively and efficiently discharge their duties and that project management and administration are handled professionally and meet the standards and requirements of GEF.
4	Political or security complications in some of the project sites may constrain or delay the implementation of activities and could impact private sector involvement by affecting markets and value chains. Lack of capacities among implementing partners in the government may also lead to delays.	Security risks and accessibility were considered during the selection of sites and those with security challenges and poor accessibility were avoided. Administrative capacities at the EFCCC have been assessed (Annex 17). Furthermore the UNDP will assist the PMU and other partners in administrative tasks. Woreda level teams in particular will receive training in organizational skills as part of project activities (1.3.1) ahead of on-ground implementation.

5	Conflict and displacement could result in delay in commencing the project activities or their suspension. Project sites are spread across all of Ethiopia's regions and emerging conflicts could jeopardize the implementation of project activities in regions facing instability.	Mitigation/avoidance: Conflict and consequent displacement are unlikely to affect the entire project as it is spread across all the regions of Ethiopia. Furthermore , this project is being implemented via regional government agencies and departments and its field activities will be coordinated out of premises of the woreda administration which are secure and safe locations. Project staff, including any consultants or supporting staff from partner agencies will conform to agreed government protocols on safety. The woreda administrator, who is part of the woreda steering committee, will be the official channel to provide security related information to the project teams and project activities will only be initiated and conducted in those sites which are deemed secure. Additionally, the extent of this risk will be reassessed at project inception, and will continue to be monitored. Any severe implications that will affect project implementation in specific locations will be considered by the Steering Committee and communicated accordingly.

6	Women, marginalised groups and other project rights holders may not find appropriate representation in traditional and customary institutions and may lack influence during design and prioritisation of project activities. Inequitable social hierarchies, customs and norms may be used by dominant groups to corner and misdirect project benefits and exclude rights holders, particularly women during consultations or formation of user groups or committees for implementing project activities. This may exclude project right holders and potentially reproduce discrimination, particularly against women based on gender but also for marginalised groups and prevent them from participation in design and implementation or access to opportunities and benefits from the project.	The project will engage the services of gender and social engagement expert to conduct a comprehensive Social Assessment for each project site and to develop a clear set of guidelines that ensure women and marginalised groups are identified and provided opportunities to participate in decision making in the project. The GAAP (Annex 11) as well as the SHEP (Annex 9) provide an analysis of the gender issues in the project area along with strategies and recommendations to counter these. The project will mainstream gender concerns throughout all its activities. This will be guided and monitored by a gender specialist hired to support the project throughout its life cycle. The project specifically addresses the need for mainstreaming gender responsive climate change adaption planning with programmes and projects and sensitising staff to issues of gender and social equity at the woreda and kebele level (outputs 1.1 and 1.3). Identification of beneficiaries through a verifiable process of community consultation coupled with regular monitoring and reporting of project activities and impacts will minimise the risk of project activities being misdirected. Community mobilization and capacity building activities are incorporated into project design and precede interventions proposed in outcomes 2, 3 and 4. These will be conducted by woreda/kebele staff who will been trained in gender responsive planning and participatory methods (output 2.1 and 3.1). The monitoring systems for the project (output 1.2 and 3.1) have been designed to ensure that gender disaggregated information is gathered and that marginalised groups, including women, are met with separately to ensure their perspectives are captured. The PPG process included consultations with representatives of the Ministry of Women, Children and Youth Affairs at national, regional and woreda level, marginalised groups, women community members and gender and community experts and NGOs. Their concerns have been incorporated these into project design (Annex 9 – SHEP). The proposed strategy ensures equal opportunities for women and marginalised groups in project implementation and management and benefit from project outputs. This extends to assessments, evaluations and monitoring of project activities which will be gender disaggregated to ensure adaptive feedback and course correction where necessary. The following measures are included: i) A minimum of a third of the attendees (both staff and beneficiaries) of all project related meetings, training programmes or other events will be women. ii) Proportional representation of marginalised groups and a third representation of women as members of user groups and committees and as elected office bearer; iii) Communication and training materials prepared for communities and non-technical users will be designed for use by semi-literate users by including illustrations and making use of colour codes and charts. This material will be vetted by an expert to ensure it is gender sensitive and responsive; iv) Project teams will include women members and timings of activities will be conductive to the participation of women, ensuring their security and access; v) Separate committees and user groups will be mobilised for women and marginalised groups for activities that have been prioritised by them during the planning process, for e.g. drinking water and small scale irrigation, micro-credit and savings and entrepreneurship and income diversification. These interventions will ensure that women and vulnerable groups i) are identified, mobilized, empowered

7	The Project poses a risk of introducing invasive alien species.	The project will ensure that only those exotic species will be considered that are: i) considered non-invasive; ii) have been demonstrated to be viable; iii) are successfully and routinely being used by the government and communities due to their economic and social benefit and iv) are already present in the sites and successfully utilized. As much as possible, available indigenous species will be utilised and encouraged. The project's environmental safeguards specialist will consult to ensure all options for indigenous species have been exhausted before exotic species are selected for the project. Local forestry and agricultural research agencies will be approached for supply of indigenous saplings and will be engaged in the training of woreda and kebele staff who will further train community members in nursery, planting and aftercare. The ESMF (Annex 10) provides for screening and, where necessary, an Environmental Impact Assessment (EIA) and/or site-specific ESMPs, to guide the management of this risk and will identify needed measures in case there is a threat of invasion of alien species due to project activities.

8	The potential outcomes of the Project may be sensitive or vulnerable to potential impacts of climate change.	The project seeks to mainstream climate change adaptation through up-scaling effective and innovative technologies in a participatory framework which leverages the private sector. Key outputs of the project address the vulnerability of its activities to climate change, including extreme weather events. All the project components lead to this objective. Specific outputs will ensure climate change impacts are effectively addressed through preparation, planning and implementation of appropriate and cost effective adaptation measures. These include: Output 1.1 which will ensure stakeholders the woreda and kebele level are trained to effectively use information on adaptation needs and vulnerabilities for gender responsive climate adaptation planning. Output 1.2 will help develop climate information products and train expert trainers so that they can, in turn train extension services in their use (output 2.1) for on-ground adaptation by farmers and pastoral groups (output 2.3). A similar strategy will be applied to build integrated climate change adaptation plans (output 1.2), identifying and training key focal points at the woreda level for coordinating the implementation of these plans (output 1.3). Farmers will be trained in the use of climate smart agricultural practices (output 2.2) and will participate in their on-ground adoption through farmer field schools, demonstrations and on-ground activities (output 2.4). This will be supported by developing linkages where the private sector can help disseminate these technologies (output 2.5). The project will ensure long term resilience of landscapes through the training on (output 3.1) and development of integrated frameworks for landscape conservation, restoration and management (output 3.2) and their dissemination (output 3.3). Finally the project will leverage the private sector to provide training on alternative and diversified income generation to local communities (output 4.1), nurture small scale businesses (output 4.2) and promote and establish livelihood diversification strategies among agricultural and pastoral communities (output 4.3). Therefore, the activities implemented during the project will not only be resilient to climate change and extreme weather events, but will equip communities to effectively and sustainably adapt to these challenges. The risk of climate change impacts will also be assessed during the ESIA and the ESMP will provide further mitigative measures to be put in place.

9	Construction and operation of soil and water conservation structures could pose potential safety risks to local communities.	Design and construction of any structure which poses a potential threat will include pricing for protective measures such as fences or boundary walls and for their maintenance. Parameters to trigger mitigation measures will include dimensions of the structures such as height, depth and accessibility, the latter to determine whether a structure is located near people or livestock. All workers engaged in construction activities will be required to adhere to occupational safety measures as per Labour Proclamation No. 1156/2019, Part Seven which covers occupational safety, health and working environment[1]. Workers will be properly instructed and notified about any hazards from the work being undertaken. The PMU will ensure workers use necessary personal protective equipment (PPE) where applicable and are provided instructions in their use. All accidents will be registered and reported to the relevant labour inspection service. The PMU will also ensure that the work place does not pose a threat to workers and that all precautions are taken to avoid hazards. Local communities, who will often be involved in the construction of soil and water conservation and water harvesting structures will formally be informed about the work and its potential dangers. The PMU will ensure the availability of first aid kits and means for evacuation of injured persons to nearest medical facilities. The ESMF will guide the preparation of an ESIA and ESMP to ensure all structures designed are equipped with requisite safety measures. M&E arrangements will include specific monitoring of status of protective measures and any changes in accessibility to it by people of livestock. In addition, the project will generate awareness of the potential risks posed by these structures during meetings and mobilisation events to ensure communities take adequate precautions such as guarding and reinforcing fences around deep pools, particularly during the wet seasons.
10	The project supports agricultural livelihoods which may fail to comply with national and international labour standards and result in increased employment of children.	Ethiopia has ratified all international conventions on child labour. However its labour laws do not all conform to international conventions. The agricultural sector remains a major employer of child labour and children are involved in planting and harvesting, herding livestock including cattle and fishing. Children are also involved in various domestic work which include unpaid household services, including carrying heavy loads of water and firewood. Other areas where children are employed are construction which includes carrying heavy loads and digging[2]. The project will not employ children in any of its implementation activities and will adhere to Articles 89 of the Labour Proclamation which prohibits children below 15 from working and young workers being assigned certain kinds of work. The project will ascertain the risk of supporting practices that employ child labour during the ESIA and additional mitigation measures will be identified and put in place to avoid this risk.

11	The traditional knowledge of farming and pastoral communities may not be fully acknowledged when integrated with other climate smart technologies.	The project follows a consultative and community driven strategy which incorporates traditional knowledge into adaptation measures. Output 2.1, in particular, envisages the combination of traditional knowledge with climate information and climate smart agricultural practices to develop hybrid and robust adaptation strategies with communities. This includes traditional weather forecasting and practices among farming and pastoral communities. The social assessments undertaken during Component 1 (Activities 1.1.1, 1.1.2, 2.2.1) and activity 2.2.2 will ensure traditional knowledge and practices are clearly documented and communities are engaged and willingly incorporate these into new technologies and practices being proposed. Project staff will be sensitized to the need for recognising and building on these traditional practices during activities 1.1.3, 1.3.1 and 2.2.1. Social assessments under Component 1 will also determine the presence of any group that could be considered Indigenous in the broad sense as per characteristics in UNDP SES 6, and whether some activities would need to apply Free Prior and Informed Consent (FPIC). The ESMF provides for the formal assessment of risks of communities not being adequately acknowledged or being prevented from utilising their traditional knowledge of adaptation measures in the project.
12	There is a possibility of marginalized groups, in line with SES 6, being present in the project area. Ethiopia is ethnically diverse and made up of over 80 different ethnic groups. While the Ethiopian constitution guarantees the rights of all these groups, there is the potential that in some areas some groups, particularly smaller ethnic minorities, may be marginalized.	The project activities will be guided by the SHEP and GAAP to ensure representation of marginalised groups and women during designing, planning, managing, implementing and monitoring of activities. Activities under output 1 specifically ensure the assessment of marginalized groups, as well as ensuring project staff are sensitised and trained to identify and engage with such groups and to ensure they are consulted with and are meaningfully represented in user groups and committees formed during the project. As per the SHEP, consultation and training activities will take into account the need of marginalized communities, including when selecting timing, location and format, taking into account needs of these groups as well as prevailing cultural norms. The ESMF guides the determination of whether the an Ethnic Minority Group Plan (EMGP) is required for a project component as a whole or any of its activities, and/or whether there is a need for FPIC based on UNDP SES 6.

13	The project envisages creation of check-dams and other small soil and water conservation structures. The resulting alternation of natural flows and impoundment of water could potentially flood pasturelands and croplands and obstruct movement of humans and livestock. Failure of the structural elements of the project, such as collapse of a dam or gabion, may present a risk of injury to community members.	Most structures created by the project will be small and constructed from local materials such as soil and stones. Even in the case of a breach, these pose little or no risk. The design of all soil and water conservation and water harvesting structures will be undertaken by qualified professionals as per Activity 3.2.3. These designs will incorporate both historical (from available data and community interactions) as well as projected rates of flows and precipitation to make provisions for extreme rain events and resulting flows. An ESIA will be triggered whenever a structure exceeds a specified size or potential for risk as per the ESMF (Annex 10). This will minimise the risk of structural failure and consequent risk to communities.
12	National and regional responses to the COVID pandemic may involve lockdowns. Outbreaks of COVID-19 in project sites may result in lockdowns which limit access of staff and materials to the sites and constrain the movement of stakeholders and communities which delays or even prevents timely implementation of activities.	The project and its personnel will abide by all rules and regulation mandated by the Government of Ethiopia in response to COVID-19. Most lockdowns will be imposed within specific zones or cities allowing project activities to go unimpeded elsewhere. The project manager will determine the location and period of all lockdowns and take the following measures to ensure project activities are conducted smoothly as far as possible: 1. Project staff and consultants will be required to learn how to use of online tools such for video conferencing, project management and collaboration. 2. Project staff and consultants will be required to learn and utilize screen casting and recording software to ensure presentations and training videos can be prepared and shared online ahead of remotely held meetings and workshops. Where necessary, project staff will assist in translation and editing of the materials. 3. Communication and transport channels will be identified and hired where needed to transport project materials between locations. 4. Project activities will be prioritized and windows and gaps in lockdown will be used effectively to ensure they are completed in time. 5. A system of delegation of responsibilities will be put in place to facilitate decision making and action wherever feasible. This will be carefully monitored by the project manager and her/his support staff. Multiple channels of communication will be opened up between project managers at all levels and project staff to ensure activities are not held up and to facilitate the process of delegation and administrative support.

13	Value chains and markets may be affected by the COVID-19 pandemic. Some of the value chains and markets which the projects propose to tap may be subdued or even non-operational. This may hamper the delivery of outputs from project component 4 and activities linking private sector with delivery of financial services, materials and markets for livelihood and income diversification in component 2.	The project will attempt to localize value chains and linkages to markets and private sector agencies, so they are more resilient to the potential disruption of transportation and movement. Farmers and pastoral groups will be supported to establish and strengthen local linkages to with markets and supply chains. Where possible, materials and goods will be purchased in bulk and moved to project sites in project vehicles or vehicles hired for the purpose. The wide range of value chains promoted by the project, and their diversification between rural and peri-urban areas, will reduce the risk that all project focus is put on specific value chains particularly affected by the epidemics (e.g. rural value chains may still be open while peri-urban ones may be impaired). Operationally, project staff and consultants will abide to the regulations and hygiene practices described above, including the use of online communications where possible.

14	There is a risk that project stakeholders and staff assist the transmission of COVID during project activities. The project activity may result in movement of stakeholders between cities, towns and villages and their gathering for events such as meetings, training programmes or participatory exercises. This could result in higher exposure and risk of contracting and transmitting COVID-19 among the stakeholders.	All government directives, such as lockdowns and mandatory quarantine will be adhered to, as will any restrictions on travel, organization of events or sizes of meetings and workshops. In addition, the project will take the following precautions and mitigating measures: 1. Project staff will take additional precautions to ensure that stakeholders and beneficiaries are not exposed to and that project activities do not in any way, allow spreading of the virus to rural areas. Awareness among project staff and stakeholders, including communities will be embedded in all interactions. Project staff will distribute awareness materials and personal protective gear that is made available by parallel efforts in the region. Precautions that will be taken include: 1. Travel, especially international travel, but also travel between towns and villages will be avoided wherever possible. In case where such travel is unavoidable, the concerned person will follow government mandated and WHO recommended protocols including testing and isolation/quarantine to prevent any possibility of spreading. All project staff will be required to undergo the mandated quarantine prior to travel and after reaching the destination. This may be truncated if the concerned staff is tested COVID negative at the destination. Project staff engaged in training of trainers and conducting field surveys will, in particular, need to take these precautions and will organize their schedules so that fewer and longer trips are made in place of short, frequent trips. 2. The project implementation strategy ensures the bulk of activities are coordinated at the woreda PMU offices and implemented by local extension and line department staff. This will minimize potential transmission due to movement of project staff. Delegation of activities, as described earlier, will further ensure activities are implemented smoothly with minimal movement of staff between towns and cities. 3. The project has a strong emphasis on the use of mobile ICT which includes provision of networking equipment and infrastructure to the woreda offices and project teams. This will minimize face to face interactions and facilitate online interactions and transfer of data, information and instructions. Project staff will be encouraged to utilize online facilities and applications for meetings and workshops where possible. Training will be provided in the use and operation of such tools. 4. The training of trainers approach will effectively transfer capacities to local institutions. Precautions that need to be taken during these interactions will include limiting the number of trainees per workshop, use of PPE and selection of venues where social distancing measures can be maintained and where there is regular monitoring of staff health. 5. Mandated safety protocols and best practices such as use of masks, gloves, sanitizers and maintaining social distancing will be followed by project staff. Community members participating in project activities will also be required to follow these practices and encouraged to adopt them as basic precautionary measures to avoid contracting and spreading COVID-19. 6.Protective equipment such as masks,gloves and hand sanitizers will be provided to staff and participants in project meetings and events. Their use will be mandated. 7. If and when possible, project staff and consultants who require movement between regions and internationally will immunize themselves using approved vaccinations.

[1]Federal Democratic Republic of Ethiopia, Ethiopia - Labour Proclamation No. 1156/2019.

[2]US Department of Labour, Bureau of International Labor Affairs, '2018 Findings on the Worst Forms of Child Labor'.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The project will be supported by a national PMU as well as a woreda based PMU office that will be supervised by the Woreda Steering Committee (WSC). The WSC will comprise of: i) the Woreda Administrator (Chair of the WSC); ii) an EFCCC representative (Secretary to WSC); iii) a Woreda Project Officer (WPO); iv) a local university representative; v) local CBO representatives (including women and youth groups and marginalized community groups); vi) a CBO representative; vii) a representative micro finance institutions; and a sectoral representative from both from the Woreda and Kebele levels from the technical government departments and Cooperative offices. These changes are meant to simplify and streamline the management and administration of the project which, by virtue of being thinly spread out, cannot afford the costs of a large administrative machinery and complex implementation arrangements. The present structure lays emphasis on decentralising decision making at the level of the Woreda Steering Committee. The project will coordinate its on-ground operations from decentralised project management units at each woreda that will be overseen by the centralised PMU.

Role	Concerned agencies in PIF	Concerned agencies in final proposal

Project Steering Committee	1. EFCCC (Co-chair); 2. UNDP (Co-chair); 3. Ministry of Agriculture and Natural Resources; 4. Ministry of Finance and Economic Cooperation (MoFEC); 5. National Meteorological Agency (NMA); 6. Ministry of Water, Irrigation and Energy (MoWIE); 7. Regional Representatives (one 8. from each region). 9. Disaster Risk Management Commission (DRMC). 10. Ethiopian Biodiversity Institute (EBI). 11. Ethiopian Wildlife Conservation Authority (EWCA). 12. Ethiopian Environment and Forestry Research Institute (EEFRI). 13. Ethiopian Agricultural Institute (EAI) 14. Development Commissions from each region.	EFCCC (Project Executive); UNDP (Development Partner, Project Assurance); EFCCC replica at the local level; CCRDA (Beneficiary Representative); Ministry of Agriculture and Natural Resources (MoA); National Meteorological Agency (NMA); Ministry of Water, Irrigation and Energy (MoWIE); Ministry of Women Children and Youth Affairs (MoWCYA).
Implementing Partner	Not specified	Federal EFCCC
Responsible Parties	Not Specified	EFCCC, MoANR; NMA

Agencies for technical support, to be finalised by the Implementing Partner and Responsible Parties.	Not Specified	1. University of Reading: PICSA development and capacity building. 2. SNV Ethiopia: Private sector engagements and value chain development. 3. Ethiopian Academy of Sciences: Vulnerability analysis, adaptation needs assessment emphasising gender inclusion. 4. International Centre for Tropical Agriculture: Integrated landscape planning including field surveys, training and documentation of lessons learned. 5. Farm Africa: Climate Smart Agricultural technologies – training and demonstrations.
Project Support	Not specified	Federal PMU (EFCCC) Woreda PMU managed by Woreda Steering Committee

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

A more detailed discussion on consistencies with national priorities is provided in Section II of the Pro-doc which is summarised below.

- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

The proposed LDCF project is aligned with Ethiopia's National Adaptation Programme of Action. The GoE developed the NAPA in accordance with the requirements outlined in the UNFCCC COP 7, which listed 37 urgent and immediate adaptation needs. These were further refined to a list of 11 priority projects, the majority of which are specifically concerned with community adaptation. The proposed LDCF project is aligned with the following NAPA priorities:

Priority 2: strengthening/enhancing drought and flood early warning systems. The project will support the use of seasonal forecasts, climate advisories and real-time agro-meteorological information by farmers and pastoral communities to better plan for climate change impacts (outputs 2.3).

Priority 3: development of small-scale irrigation and water harvesting schemes. The project will support improved irrigation practices and rainwater harvesting for small-scale irrigation (output 2.5).

Priority 4: improving/enhancing rangeland resource management practices. The project will support the restoration of degraded watersheds and improved management of rangeland areas (output 2.5).

Priority 6: capacity-building for climate change adaptation. This project has a large focus on capacity building for implementing adaptation interventions at various levels. In particular, capacity building focusses on tools and training on gender-sensitive vulnerability assessments and adaptation planning (outputs 1.1 and 1.2), as well as the implementation of adaptation interventions and the use of climate advisories (outputs 2.2 and 2.3).

Priority 7: realising food security. The project will support improved agricultural production through promotion of climate-resilient cropping techniques as well as diversification of livelihood options and income-generating opportunities (outputs 2.2 and 2.4). This will lead to enhanced food and nutrition security as a result of more reliable agricultural production and improved household income levels.

- National Action Program (NAP) under UNCCD

The NAP under UNCCD undertakes to establish strategies and priorities within the framework of sustainable development plans and policies to combat desertification and mitigate the effects of drought. Ethiopia has a sustainable

development framework in the form of the Conservation Strategy of Ethiopia (CSE) and the NAP is in line with this framework. It identified gaps and additional policies and strategies to address the gaps in the CSE of which many are closely aligned with the strategy proposed in the project. This includes management of natural resource for sustainable development, improving drought knowledge and desertification, promoting alternative livelihoods, diversification of agriculture, promoting awareness and participation of communities, building institutional organisation and capacity and empowerment of women.

- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

Ethiopia has prepared two NBSAPs. The first was implemented in the period 2005 and 2015 and the second between 2015 and 2020. The government, in the plan puts in place the necessary institutional and legal frameworks to govern conservation, sustainable use and access to generic resources and the fair and equitable sharing of benefits arising from their use. The plan is based on participation of stakeholders from the government, local communities, academia, civil society and NGOs

- National Communications (NC) under UNFCCC

The Second National Communication (SNC) of Ethiopia to the UNFCCC articulates its willingness to contribute to the reduction of greenhouse gas emissions as per the goals of the Convention and outlines the climate-vulnerability of various economic sectors, particularly agriculture. Specific climate change-induced threats to agriculture outlined include increased frequency and intensity of drought, increased soil erosion and increased mean annual temperatures. The proposed LDCF project is aligned with the provisions for climate change adaptation under the UNFCCC in that it aims to increase the climate resilience of Ethiopia's agricultural sector in the most vulnerable communities by increasing technical capacity for planning and implementing of climate change adaptation practices.

- National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

Ethiopia submitted its NSCA Action Plan in 2006. The report reviews the situation regarding the nature of the obligations contained in the several international environmental conventions, protocols and other agreements entered into by the country, the status of their implementation, including the existing capacity at national level, as well as the policies and strategies in existence and operation required to meet these undertakings. Ethiopia signed the Convention on Biological Diversity (UNCBD) on 10 June 1992 and ratified on 5 April 1994 by ratification (Proclamation No. 98/1986). Since then the country has taken steps to translate the general provisions of the Convention into practical action, including the preparation of the national action plan on biodiversity and adoption of the Cartagena Protocols on Biosafety, signed in 2000 and ratified in September 2003. Ethiopia became a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) on June 10, 1994 and ratified on April 5, 1994 and entered into force on July 4, 1994. Ethiopia ratified the UN Convention for Combating Desertification on 27 June 1997 and submitted its National Action Programmes in year 2000.

- **Poverty Reduction Strategy Paper (PRSP)**

The Growth and Transformation Plan of Ethiopia corresponds to its PRSP. These strategy papers are updated every three years. The GTPs describe the country's macroeconomic, structural, and social policies in support of growth and poverty reduction, as well as associated external financing needs and major sources of financing. The focus of Phase II of Ethiopia's GTP is to alleviate poverty and support the achievement of middle-income status for the country before 2025. Agricultural development is identified as a means of achieving poverty alleviation, with a focus on inter alia: i) land rehabilitation through water and soil conservation; ii) livestock production; and iii) agricultural research. The proposed LDCF project will address the baseline problem identified in Phase I of the GTP of land degradation related to overgrazing and other unsustainable land use practices. Consequently, the project is aligned with the aims of Phase II of the GTP in that it will promote poverty alleviation through the development of the national agriculture sector in a climate-resilient manner.

- **National Portfolio Formulation Exercise (NPFE) under GEFSEC**

Ethiopia submitted its National Portfolio Document to the GEF in January 2012. The document summarises the environmental challenges faced by Ethiopia and the measures being taken to address these. Among the key issues identified are climate change where projects on resilience building through ecosystem-based approaches are highlighted. National programmes listed in the document include the programme on Combating Climate Change through Integrated Community Based Natural Resource Development, Management and Efficient Utilization in the Eastern Lowlands

of Ethiopia. These programmes are closely tied to the proposed LDCF project which draws from lessons learned and builds upon these initial efforts.

The proposed project is well-aligned with Ethiopia's "**Homegrown Economic Reform Agenda**", launched in 2019, which aims to transform Ethiopia from a largely agrarian low-income country to an industrialized lower-middle-income country by 2030. This will require the private sector to take charge of growth amid waning public sector financing capacity. The Agenda is a well-coordinated response and blueprint to propel the country's economic progress, and it is crafted through a process of taking stock of the country's successes; an in-depth review of key bottlenecks and design of adequate remedies, outlines macro-economic, structural, and sectoral reforms that will pave the path for jobs and inclusive growth. The proposed project is aligned with the Agenda through forging partnerships with the private sector, particularly in tapping the potentials created to access climate information services, job creation and livelihood diversification schemes among others.

- **Others**

The **Sustainable Development Goals** (SDGs) build on the Millennium Development Goals (MDGs) and are underpinned by an array of issues that address the root causes of poverty and the need for development on a global scale. The proposed LDCF project aligns with the 17 SDGs, in particular with SDG number's: 1) poverty; 5) gender equality; 11) sustainable cities and communities; and 13) climate action.

Ethiopia's **Nationally Determined Contribution (NDC)** identifies two main approaches for addressing climate change, namely mitigation and adaptation. Within the NDC's adaptation component, the GoE intends to undertake adaptation initiatives to the vulnerability of Ethiopia's population, including farmers and pastorals to the adverse effects of climate change – a goal with which the project's objective is well-aligned. In addition, the NDC identifies the need to increase the resilience of livelihoods to climate change in three pillars, including droughts. The NDC will be revised in 2020 to take into account new realities and renewed ambition by Ethiopia.

Ethiopia's **Climate Resilient Green Economy Strategy** outlines sustainable methods for achieving economic development goals. It identifies agricultural development as a foundation for economic growth in Ethiopia. Specifically, improved crop and livestock production practices are highlighted as a means of improving food security and agricultural livelihoods while reducing carbon emissions. The proposed LDCF project is aligned with the CRGE in that its activities will increase the capacity of local communities to practice farming and agro-pastoralism, even under conditions of climate change.

The **Agriculture-Led-Industrialization Strategy** (ADLI; 2007) aims to enhance the productivity and income of small-scale farmers through inter alia: i) introducing sustainable agricultural practices; ii) increasing export earnings; and iii) increasing crop diversity. The proposed LDCF project is aligned with the ADLI in that it increases local community and government capacity to practice climate-resilient farming and agro-pastoralism and to diversify livelihoods.

The Agriculture and Rural Development Policy and Strategy (2003) identifies agricultural and rural development as a means of: i) supporting rapid economic growth; ii) enhancing benefits to rural people; iii) addressing the country's food aid dependency; and iv) promoting the development of a market-oriented economy. The proper utilisation of agricultural land and dissemination of appropriate technology are identified as two approaches to developing agriculture in Ethiopia. The proposed LDCF project supports both of these approaches through its climate-resilient pastoral and agro-pastoral interventions.

The **Environmental Policy of Ethiopia** outlines important measures related to climate change, stating that the Government should “develop effective methods of popular participation in the planning and implementation of environmental and resource use and management projects and programmes” and “co-opt existing traditional systems of research and learning into a new system which incorporates both modern and traditional components…”. The proposed LDCF project is consistent with this policy in that it seeks to develop methods for community participation in local level planning and will look at both new and traditional technologies for adaptation in the intervention planning process. The proposed LDCF project is further aligned with various other national policies, including: i) the Water Resources Management Policy; ii) the Health Sector Development Policy and Programme; and iii) the National Policy on Disaster Prevention and Preparedness. It is expected that this proposed LDCF project will generate valuable lessons, methodologies and approaches to strengthen these policies so as to promote climate resilience in national planning.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The project team will ensure lessons learned and good practices are recorded and disseminated to enable adaptive management and up scaling or replication at local and global scales. Results will be disseminated to targeted audiences through relevant information sharing fora and networks. The project will contribute to scientific, policy-based and/or any other networks by providing content, based on lessons learned and by enabling participation of stakeholders and beneficiaries. The project approaches knowledge management as a cross cutting element across all its components, with the bulk of knowledge management activities in component 1 and 3. However, each component will make its independent contribution to lessons learned and best practices.

There are specific common elements in the approach to knowledge management. Strategically, the project seeks to build capacities of local institutions and the communities focusing on woreda and kebele level government agencies and community-based organisations. Therefore, all national and international experts brought into the project will be expected to transfer their skills to local agencies. Bulk of the training will be done through a series of hands on training events and demonstrations. Most training programmes therefore involve a training of trainers approach by which skills and capacities are passed on to mostly woreda but also some national and regional staff. These staff then work with and train communities. The use of mobile ICTs and spatial technologies is another common element of the knowledge management in the project. Tools such as the Open Data Kit combined with open source GIS technologies will be used for planning, monitoring and reporting on project activities. This is expected to greatly increase the efficiency and transparency of monitoring thereby facilitate adaptive learning and rapid course correction when needed. Assessments, feasibility studies and site surveys conducted during the project will be routed through woreda or regional stakeholders and will involve extensive engagements with communities using a slew of participatory approaches. A validation process is built into these activities which will ensure that results and conclusions are ‘bounced off’ communities and stakeholders, thereby ensuring transparency, an opportunity for communities and stakeholders to weign in and formal mechanism for sharing of insights and information.

Lessons learned, data and information collected during the project will be documented and archived using public and open standards, making it available for further analysis and evaluation by government and research agencies. Stakeholders and project staff will participate in local, national and international events to share experiences from the project, to interact and establish cross learning mechanisms and networks with similar initiatives during international conferences (Activity 1.1.6), national knowledge sharing events (Activity 3.3.2) and local - woreda level knowledge sharing events (Activity 1.3.2). Other project teams and NGOs engaged in similar work will be invited to these validation and knowledge sharing events to ensure cross learning and collaboration. Among these projects are the on-going GEF and GCF supported FOLUR and RIRD and development agencies including GIZ, JAICA, FAO, Farm Africa, SNV and CIAT and research agencies such as Ethiopian Academy of Sciences, University of Reading, the Jimma University and Agricultural Research Centre and other leading universities engaged in research in climate change, agriculture and natural resources.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The M&E plan is presented in section VI and Annex 5 of the Prodoc. A summary is provided in the table below.

Monitoring and Evaluation Plan and Budget:			
GEF M&E requirements	**Responsible Parties**	**Indicative costs (US$)**	**Time frame**
Inception Workshop	Implementing Partner Project Manager	10,000	Within 60 days of CEO endorsement of this project.
Monitoring all risks (UNDP risk register)	UNDP Country Office PM/Coordinator/ CTA	2,000/year 10,000	On-going

Monitoring of indicators in project results framework	Project Manager will oversee national institutions/agencies charged with collecting results data.	2,000/year 10,000	Annually prior to GEF PIR. This will include GEF core indicators.
Monitoring of Environmental and Social Safeguards	Project Safeguards Officer	(2,000/year) 10,000	On-going.
Monitoring of stakeholder engagement plan	Project Stakeholder Engagement Officer	(2,000/year) 10,000	On-going.
Monitoring of gender action plan	Project Gender Officer	(2,000/year) 10,000	On-going.
Project Board/Steering Committee Meetings	Implementing Partner Project Manager	(6,000/year) 30,000	Annually.
Mid-term GEF and/or LDCF/SCCF Core indicators and METT or other required Tracking Tools	Implementing Partner Project Manager	5,000	Before mid-term review mission takes place.
Independent Mid-term Review (MTR) and management response	UNDP Evaluation Specialists and independent evaluation consultants.	37,500	December, 2023
Terminal GEF and/or LDCF/SCCF Core indicators and METT or other required Tracking Tools	Implementing Partner Project Manager	5,000	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) and management response	UNDP Evaluation Specialists and independent evaluation consultants.	37,500	Second Quarter of 2026
TOTAL indicative COST		**175,000**	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The project will benefit 225,000 persons directly (115,445 female, 109,555 male) and an additional 466,508 indirectly. (230,577 female, 235,931 male). About 148,444 of the beneficiaries (66%) are from rural areas and the rest from peri-urban sites. Among the rural beneficiaries nearly 62% are from farming, 31.3% from pastoral and 6.6% from agro-pastoral communities. Peri-urban sites accounted for less than 6.5% of the land area of selected sites, yet, they comprised about 34% of the beneficiaries on account of being densely populated. About a quarter of the beneficiaries were from the low-density pastoral and agro-pastoral areas which occupied over 75% of the project area, while farming with just under 20% of

the land area comprised of ~41% of the beneficiaries. The project will provide adaptation benefits such as:

1. Increases and stability in yields and productivity from both cropping and livestock production through improved extension support and adoption of climate smart agricultural practices.

2. Food security by adopting resilient varieties of crops and livestock, diversifying production through agroforestry and adopting practices that reduce agricultural losses that would have otherwise been affected by climate change

3. Alternative livelihoods and diversified incomes and jobs that allow communities to broaden sources of livelihoods and work to those less vulnerable to impacts of climate change.

4. Restoration and stabilisation of landscape and ecosystem function which sustains ecosystem goods and services, including water, biomass and NTFP.

5. Increased incomes from processing and sales of agricultural produce by linking producers with the private sector, markets and value chains and supporting young entrepreneurs from within farming and pastoral communities.

Climate challenges and adaptation needs of communities were determined by a combination of livelihood strategies and the agro-ecological zones (AEZ) they occupy. The AEZ reflect the potential productivity and hence the available resource base and its inherent vulnerability or resilience to climate change. The two major climate change related hazards described by the communities were drought and flood which includes extreme weather events, i.e. temperature spikes and extreme rain events. Many communities faced both droughts and flooding. Climate impacts translated in losses and reduced yields from crops and livestock as well as physical risks from floods and mudslides. All the project sites faced various forms of land degradation and erosion with communal lands being severely depleted through unsustainable utilisation. Streams running through these landscapes were

intermittent and tended to flood during the rainy season and subsequently go dry. Lack of drinking water for households and livestock was a problem faced in all rural sites. Women in particular felt that provision of a safe and reliable water source would be the most important adaptation measure, saving them hours of walking and resulting insecurities as well as providing lifesaving water for livestock and crops. Most sites faced various degrees of soil erosion. Sites in hilly terrain, in particular were scarred by gullies and ravines. In peri-urban sites, and some farming villages, this translated into washing away of productive agricultural lands and damage to buildings and urban infrastructure. Livelihoods and customary sources of income "dried up" during the increasingly frequent climate disasters. Most communities had unsustainable coping strategies such as distress sales of produce, cutting and sale of firewood and charcoal production. These negatively impacted the environment and made it harder to recover from subsequent disasters. Livelihood diversification was minimal, particularly in rural sites. Peri-urban sites too, were unable to explore potential income sources. Both rural and urban communities as well as stakeholders at the woreda highlighted the lack of access to financial services, training and markets as major constraints. Crop and livestock insurance and credit for income diversification were clearly articulated needs.

The project will benefit these communities by addressing these challenges and barriers. A number of income generation, crop and livelihood diversification benefits will accrue to all the livelihood groups, determined by suitability to the local environmental and socio-economic context. These include:

- Rearing of small ruminants, poultry for meat and eggs and rearing pullets.
- Dairy and related activities.
- Fruit and vegetable production.
- Apiculture.
- Backyard poultry.
- Planting fast growing trees for fodder and fuel.
- Improved wood stoves reducing fuel requirements.

In addition to this, stakeholders, particularly extension staff and line departments in the woreda government, will benefit from training and capacity building in participatory planning, implementation and management of this project and mainstreaming climate adaptation into other programmes and initiatives of the government.

Pastoral groups occupy 12 kebele and are largely migratory. Most of these kebele were located in hot, warm lowlands facing water scarcity. These areas are unsuitable for intensive cultivation and many are faced with severe land degradation. Land cover was largely open shrubland (64,165ha) and grassland (12,947ha) with some area under perennial crops

(19,706ha) and bare soils (12,989ha). Project activities in these areas therefore focus on management and restoration of rangelands and soil and water conservation coupled with improved, drought resistant varieties of livestock, diversification into small ruminants. The fairly high proportion of area under perennial crops suggests potential for trees to meet local energy and fodder requirements.

Agro-pastoral groups from four kebele comprise of communities with livestock, usually in homesteads with farmland. These were in more moist environments than pastoral groups but also largely in the lowlands. Secondary livelihoods associated with pastoral and agro-pastoral groups included small ruminants and poultry. Agro-pastoral areas had the highest proportion of land under closed shrubland (72,068ha) and perennial cropland (33,706ha) which also suggests potential for interventions in the area of watershed restoration and agro-forestry/tree crops.

About 46,474 members of pastoral communities from 12 kebeles and 9,800 agro-pastorals from four kebeles will benefit from:

- Adoption of resilient varieties of livestock along with improved extension support.
- Veterinary care including vaccinations.
- Pasture and rangeland management including soil and water conservation, soil moisture and erosion control focusing on controlling gully erosion and moisture conservation across 4,000ha. Community based institutions will be put in place to ensure these activities are built upon and extended past the project period.
- Small scale irrigation cum drinking water systems will be installed in all the 16 kebeles which will improve access to drinking water which significantly reduce hardships faced by women. It will reduce mortality and improve the quality of livestock and increase yields from small but intensely farmed homesteads.
- Facilitation of market access (value chains) specifically looking at communal stocking and fattening in woreda/kebele.
- Access to financial services focusing on micro-credit and livestock insurance.
- Integrated use of climate information and early warnings with seasonal calendars and migratory or sedentary pastoral practices.

Crop farmers and mixed croppers occupied 16 kebeles and included those growing crops such as maize and sorghum. These sites were largely located in lower elevation, flatter terrain with rainfall in excess of 600mm. In mountainous regions, i.e. higher elevations, lower temperatures and higher rainfall regimes, annual crops were supplemented with fruit and vegetable production. Mixed farmers also raised small ruminants, poultry, and in some kebeles, practices apiculture. Farming areas had the largest area under annual crops (22,643ha) and perennial crops (13,938ha) with woodlands contributing about 1,642ha suggesting a major role of agro-forestry related interventions in addition to crop diversification and climate smart agriculture. Interventions proposed amongst farming communities will result in adaptation measures being adopted in 16 kebeles with 92,173 individuals benefiting:

- Demonstrations of climate smart agriculture on 5 ha for the 16 farming kebele and 4 agro-pastoral kebele, including extension support for:
    - Adoption of drought tolerant, early maturing and high yielding varieties of crops.
    - Crop diversification, multi-tiered farming, agro-forestry and horticulture through adoption of suitable varieties and extending the diversity of crops in homesteads and farms thereby lowering the risk of complete crop failure.
    - Soil moisture retention through mulching, low/minimal tillage practices.
    - On-field soil and moisture conservation through contour/field bunding.
    - On site nutrient management and recycling of biomass, composting and optimizing use of farm yard manure.
- Aligning cropping calendars and crop choices to seasonal forecasts and available climate information using the PICSA approach, thereby reducing risks of crop failure due to seasonal variations.
- Soil and water conservation with focus on water harvesting with small dams and erosion control focusing on stabilizing farmed slopes. This will cover 2,000 ha of farmlands.
- Small-scale irrigation with drinking water supply, coupled with water harvesting and renewable energy or manual pumping/piping systems and micro-irrigation. This will provide “lifesaving” irrigation to crops whenever there is a failure of the rainy season or deficient rains.
- Facilitation of market access (value chains) with focus on poultry and small ruminants.

- Access to financial services focusing on micro-credit and crop insurance.

Peri-urban livelihoods were prominent in 9 kebele. These included a diverse range of livelihoods which usually included small enterprise, casual labour and small-scale farming in homesteads. A substantial proportion of the land cover was under perennial crops (6,290ha) with annual crops (2,288ha) and woodlands (1,642ha) having significant proportions. Bare soils comprised 2,397ha of land cover in peri-urban areas suggesting the need for soil conservation measures as well. A total of 76,556 individuals will benefit from adaptation measures introduced by the project in nine kebeles and ketenas. These areas:

•Improved access to financial services including micro-credit and insurance which will facilitate income diversification and investments into agro-processing and participation in value chains associated with supply of materials and services to urban areas.
•Business incubation, including identification of mentors, training, access to networks of suppliers and markets.
•Soil and water conservation covering totally 450ha (50ha per kebele) focusing on drainage and slope stabilization, reducing loss of homesteads and infrastructure from uncontrolled discharge and mudflows during heavy and extreme rain events.
•Peri-urban agriculture and crop diversification including agro-forestry/silviculture and horticulture, reducing the risk of crop failure, ensuring perennial supplies of fuel and fodder and offsetting the impact of temperature spikes.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

QUESTION 5: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***

P 1 Q4 and Q 6, P2 Q2 . Risk 1. Women, marginalised groups and other project rights holders may not find appropriate representation in traditional and customary institutions and may lack influence during design and prioritisation of project activities. Inequitable social hierarchies, customs and norms may be used by dominant groups to corner and misdirect project benefits and exclude rights holders, particularly women during consultations or formation of user groups or committees for implementing project activities. This may exclude project right holders and potentially reproduce discrimination, particularly against women based on gender but also for marginalised groups and prevent them from participation in design and implementation or access to opportunities and benefits from the project.	The project will engage the services of gender and social engagement expert to conduct a comprehensive Social Assessment for each project site and to develop a clear set of guidelines that ensure women and marginalised groups are identified and provided opportunities to participate in decision making in the project. The GAAP (Annex 11) as well as the SHEP (Annex 9) provide an analysis of the gender issues in the project area along with strategies and recommendations to counter these. The project will mainstream gender concerns throughout all its activities. This will be guided and monitored by a gender specialist hired to support the project throughout its life cycle. The project specifically addresses the need for mainstreaming gender responsive climate change adaption planning with programmes and projects and sensitising staff to issues of gender and social equity at the woreda and kebele level (outputs 1.1 and 1.3). Identification of beneficiaries through a verifiable process of community consultation coupled with regular monitoring and reporting of project activities and impacts will minimise the risk of project activities being misdirected. Community mobilization and capacity building activities are incorporated into project design and precede interventions proposed in outcomes 2, 3 and 4. These will be conducted by woreda/kebele staff who will been trained in gender responsive planning and participatory methods (output 2.1 and 3.1). The monitoring systems for the project (output 1.2 and 3.1) have been designed to ensure that gender disaggregated information is gathered and that marginalised groups, including women, are met with separately to ensure their perspectives are captured. The PPG process included consultations with representatives of the Ministry of Women, Children and Youth Affairs at national, regional and woreda level, marginalised groups, women community members and gender and community experts and NGOs. Their concerns have been incorporated these into project design (Annex 9 – SHEP). The proposed strategy ensures equal opportunities for women and marginalised groups in project implementation and management and benefit from project outputs. This extends to assessments, evaluations and monitoring of project activities which will be gender disaggregated to ensure adaptive feedback and course correction where necessary. The following measures are included: i) A minimum of a third of the attendees (both staff and beneficiaries) of all project related meetings, training programmes or other events will be women. ii) Proportional representation of marginalised groups and a third representation of women as members of user groups and committees and as elected office bearer; iii) Communication and training materials prepared for communities and non-technical users will be designed for use by semi-literate users by including illustrations and making use of colour codes and charts. This material will be vetted by an expert to ensure it is gender sensitive and responsive; iv) Project teams will include women members and timings of activities will be conductive to the participation of women, ensuring their security and access; v) Separate committees and user groups will be mobilised for women and marginalised groups for activities that have been prioritised by them during the planning process, for e.g. drinking water and small scale irrigation, micro-credit and savings and entrepreneurship and income diversification. These interventions will ensure that women and vulnerable groups i) are identified, mobilized, empowered and provided sufficient opportunities to participate and derive due benefits from the project; ii) their participation in

Risk 1. The Project poses a risk of introducing invasive alien species.	The project will ensure that only those exotic species will be considered that are: i) considered non-invasive; ii) have been demonstrated to be viable; iii) are successfully and routinely being used by the government and communities due to their economic and social benefit and iv) are already present in the sites and successfully utilized. As much as possible, available indigenous species will be utilised and encouraged. The project's environmental safeguards specialist will consult to ensure all options for indigenous species have been exhausted before exotic species are selected for the project. Local forestry and agricultural research agencies will be approached for supply of indigenous saplings and will be engaged in the training of woreda and kebele staff who will further train community members in nursery, planting and aftercare. The ESMF (Annex 10) provides for screening and, where necessary, an Environmental Impact Assessment (EIA) and/or site-specific ESMPs, to guide the management of this risk and will identify needed measures in case there is a threat of invasion of alien species due to project activities.
Risk 2. The project involves harvesting of natural forest products and pasturelands. This could result in over-exploitation of natural resources.	
P3 – S1 Q1 & S3 Q4: Risk 3. The project envisages creation of check-dams and other small soil and water conservation structures. The resulting alternation of natural flows and impoundment of water could potentially flood pasturelands and croplands and obstruct movement of humans and livestock. Failure of the structural elements of the project, such as collapse of a dam or gabion, may present a risk of injury to community members.	Most structures created by the project will be small and constructed from local materials such as soil and stones. Even in the case of a breach, these pose little or no risk. The design of all soil and water conservation and water harvesting structures will be undertaken by qualified professionals as per Activity 3.2.3. These designs will incorporate both historical (from available data and community interactions) as well as projected rates of flows and precipitation to make provisions for extreme rain events and resulting flows. An ESIA will be triggered whenever a structure exceeds a specified size or potential for risk as per the ESMF (Annex 10). This will minimise the risk of structural failure and consequent risk to communities.

Risk 1. The potential outcomes of the Project may be sensitive or vulnerable to potential impacts of climate change.	The project seeks to mainstream climate change adaptation through up-scaling effective and innovative technologies in a participatory framework which leverages the private sector. Key outputs of the project address the vulnerability of its activities to climate change, including extreme weather events. All the project components lead to this objective. Specific outputs will ensure climate change impacts are effectively addressed through preparation, planning and implementation of appropriate and cost-effective adaptation measures. These include: Output 1.1 which will ensure stakeholders the woreda and kebele level are trained to effectively use information on adaptation needs and vulnerabilities for gender responsive climate adaptation planning. Output 1.2 will help develop climate information products and train expert trainers so that they can, in turn train extension services in their use (output 2.1) for on-ground adaptation by farmers and pastoral groups (output 2.3). A similar strategy will be applied to build integrated climate change adaptation plans (output 1.2), identifying and training key focal points at the woreda level for coordinating the implementation of these plans (output 1.3). Farmers will be trained in the use of climate smart agricultural practices (output 2.2) and will participate in their on-ground adoption through farmer field schools, demonstrations and on-ground activities (output 2.4). This will be supported by developing linkages where the private sector can help disseminate these technologies (output 2.5). The project will ensure long term resilience of landscapes through the training on (output 3.1) and development of integrated frameworks for landscape conservation, restoration and management (output 3.2) and their dissemination (output 3.3). Finally, the project will leverage the private sector to provide training on alternative and diversified income generation to local communities (output 4.1), nurture small scale businesses (output 4.2) and promote and establish livelihood diversification strategies among agricultural and pastoral communities (output 4.3). Therefore, the activities implemented during the project will not only be resilient to climate change and extreme weather events but will equip communities to effectively and sustainably adapt to these challenges. The ESMP, guided by the ESMF will list specific measures to mitigate the potential impact of climate change on project activities.

Risk 1. Construction and operation of soil and water conservation structures could pose potential safety risks to local communities.	Design and construction of any structure which poses a potential threat will include pricing for protective measures such as fences or boundary walls and for their maintenance. Parameters to trigger mitigation measures will include dimensions of the structures such as height, depth and accessibility, the latter to determine whether a structure is located near people or livestock. All workers engaged in construction activities will be required to adhere to occupational safety measures as per Labour Proclamation No. 1156/2019, Part Seven which covers occupational safety, health and working environment. Workers will be properly instructed and notified about any hazards from the work being undertaken. The PMU will ensure workers use necessary personal protective equipment (PPE) where applicable and are provided instructions in their use. All accidents will be registered and reported to the relevant labour inspection service. The PMU will also ensure that the work place does not pose a threat to workers and that all precautions are taken to avoid hazards. Local communities, who will often be involved in the construction of soil and water conservation and water harvesting structures will formally be informed about the work and its potential dangers. The PMU will ensure the availability of first aid kits and means for evacuation of injured persons to nearest medical facilities. The ESMF will guide the preparation of an ESIA and ESMP to ensure all structures designed are equipped with requisite safety measures. M&E arrangements will include specific monitoring of status of protective measures and any changes in accessibility to it by people of livestock. In addition, the project will generate awareness of the potential risks posed by these structures during meetings and mobilisation events to ensure communities take adequate precautions such as guarding and reinforcing fences around deep pools, particularly during the wet seasons.

Risk 2. The project supports agricultural livelihoods which may fail to comply with national and international labour standards and result in increased employment of children.	Ethiopia has ratified all international conventions on child labour. However, its labour laws do not all conform to international conventions. The agricultural sector remains a major employer of child labour and children are involved in planting and harvesting, herding livestock including cattle and fishing. Children are also involved in various domestic work which include unpaid household services, including carrying heavy loads of water and firewood. Other areas where children are employed are construction which includes carrying heavy loads and digging[1]. The project will not employ children in any of its implementation activities and will adhere to Articles 89 of the Labour Proclamation which prohibits children below 15 from working and young workers being assigned certain kinds of work. The ESMF takes into account the potential risks of of the project supporting practices that employ child labour. The ESIA will inform the ESMP to ensure additional mitigation measures are identified and put in place to avoid this risk.

Risk 1. The traditional knowledge of farming and pastoral communities may not be fully acknowledged when integrated with other climate smart technologies.	The project follows a consultative and community driven strategy which incorporates traditional knowledge into adaptation measures. Output 2.1, in particular, envisages the combination of traditional knowledge with climate information and climate smart agricultural practices to develop hybrid and robust adaptation strategies with communities. This includes traditional weather forecasting and practices among farming and pastoral communities. The social assessments undertaken during Component 1 (Activities 1.1.1, 1.1.2, 2.2.1) and activity 2.2.2 will ensure traditional knowledge and practices are clearly documented and communities are engaged and willingly incorporate these into new technologies and practices being proposed. Project staff will be sensitized to the need for recognising and building on these traditional practices during activities 1.1.3, 1.3.1 and 2.2.1. Social assessments under Component 1 will also determine the presence of any group that could be considered Indigenous in the broad sense as per characteristics in UNDP SES 6, and whether some activities would need to apply Free Prior and Informed Consent (FPIC). The ESMF provides for the formal assessment of risks of communities not being adequately acknowledged or being prevented from utilising their traditional knowledge of adaptation measures in the project.
Q6.1, Q6.2, Q6.3. Risk 1. There is a possibility of marginalized groups, in line with SES 6, being present in the project area. Ethiopia is ethnically diverse and made up of over 80 different ethnic groups. While the Ethiopian constitution guarantees the rights of all these groups, there is the potential that in some areas some groups, particularly smaller ethnic minorities, may be marginalized.	The project activities will be guided by the SHEP and GAAP to ensure representation of marginalised groups and women during designing, planning, managing, implementing and monitoring of activities. Activities under output 1 specifically ensure the assessment of marginalized groups, as well as ensuring project staff are sensitised and trained to identify and engage with such groups and to ensure they are consulted with and are meaningfully represented in user groups and committees formed during the project. As per the SHEP, consultation and training activities will take into account the need of marginalized communities, including when selecting timing, location and format, taking into account needs of these groups as well as prevailing cultural norms. The ESMF guides the determination of whether the an Ethnic Minority Group Plan (EMGP) is required for a project component as a whole or any of its activities, and/or whether there is a need for FPIC based on UNDP SES 6.
Risk 7.2 Proposed Project may potentially result in the generation of non-hazardous waste.	

[1]US Department of Labour, Bureau of International Labor Affairs, '2018 Findings on the Worst Forms of Child Labor'.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
PIMS 5902 Annex 10-ESMF dated 5 Nov 2020 _Clean_	**CEO Endorsement ESS**	
PIMS 5902 Annex 6-SESP-dated-3-Nov-2020 _clean_	**CEO Endorsement ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

The project results framework is provided on section V of the project document.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

1. Technology transfer is preferred to development. The cost of the research and innovation component of technology development is high and there is no effective mechanism in place to address issues related to technology development and transfer.

We recognise the importance of technology transfer and the project emphasises this across its components. All external expertise and new technologies will be transferred to national agencies and government extension and development staff through a series of training programmes and workshops. The knowledge management strategy proposed also stresses the importance of technology transfer and sharing of experiences within and between different levels of stakeholders.

2. The priority sectors for technology transfer have been identified through various studies and are included in NDC. These technologies need to be evaluated based on national criteria before being deployed locally.

The project is closely aligned with national criteria and priorities which include climate smart agriculture and integrated landscape approaches as well as the effective use of climate information for on-ground adaptation. We agree that technologies need to be evaluated based on national and also local criteria. The project approaches this through its emphasis on participatory planning. Going a step further, we have tried to institute mechanisms through which communities, particularly women and marginalised groups, are given a fair representation in decision making. This is a prerequisite to ensuring their priorities are taken on board while prioritising activities. Hands on training is built into all the interventions and technologies to be transferred to communities. Local experts and extension services will use a farmer's field approach to demonstrate potential technologies in all the project woredas. This will effectively weed out inappropriate or incompatible technologies. It will also ensure the end-users get to see these technologies in action, assess them and have access to the inputs and expertise when they are adopted. The PICSA approach, is another key technology intervention that is proposed in this project. The proposal specifically requires the localisation of PICSA to ground conditions in Ethiopia, for agricultural, pastoral and for peri-urban areas.

3. Any transferred technology needs to be well managed for national benefit, and also to ensure it does not displace locally available technology.

We are in complete agreement with the observation. Design and planning of proposed interventions includes assessment and integration of traditional technologies and indigenous knowledge. We understand that this will greatly enhance the acceptance of technologies which may otherwise be perceived as new. The proposed PICSA approach to use of climate information also specifically includes integration of traditional knowledge in weather prediction and farmer/pastoralist decision making.

4. Where relevant technological innovations are locally available, the priority should be to incubate and refine them with the goal of up-scaling or replicating them, as the case may be.

Agreed. The inception phase of the project will involve detailed site-based assessments of suitable adaptation technologies and practices (Activity 1.1.1). This is as per the key strategy of the project itself which is about enhancing adaptive capacities by scaling up best practices as in Activities 2.4.1 for livelihood diversification and activity 2.4.2 for climate smart agriculture. Furthermore, the project adopts a learning by doing approach (Activity 2.4.2) and takes traditional knowledge and practices on board, integrating them with modern technological interventions (Activity 2.1.1).

Component 4 of the project seeks to set up incubation centres across the project sites and train entrepreneurs in viable businesses, identified through Activity 2.5.1. This too builds on existing value chains and replicates successful innovations by bringing in local expertise and financial services.

5. There is also a need to build local technical capacity in the design and development of alternative technologies. This may include capacity in resource assessment, system design and development, and installation and service provision at national and sub-national/regional levels.

Component 2 and 3, particularly component 3, are concerned with building local capacities among government extension and development staff as well as communities (focusing on youth) in adopting technologies such as mobile ICTs to leapfrog challenges communities face in access to financial services, information as well as reporting and monitoring projects. Component 4 seeks to build capacities among entrepreneurs so they can adapt technology to diversify income generation and access value chains that enhance profitability of agricultural and pastoral groups.

6. Considering the current significant level of unemployment in Ethiopia, transfer of green technologies should also be considered as an opportunity for job creation and youth employment.

The high levels of unemployment and the potential to transfer green technologies has been taken into account. Activities under output 2.4 are designed to employ women and youth in green technologies such as energy efficient stoves but also will engage them in nursery raising for saplings and seedlings to be used for assisted restoration, agro-forestry and vegetable/crop farming.

7. Need assessments could help to develop competitive green industries, provide an overview and estimate of the market opportunity for climate and clean technology business and identify the characteristics of these markets most accessible to local firms and to small and medium enterprises (SMEs) in particular.

Output 2.5 project includes a comprehensive market needs assessment which will then inform the income generation and livelihood diversification strategy for the project. This is followed up by a series of activities in component 4 on building business skills and incubating entrepreneurs. These activities target women and youth in peri-urban areas but also in agricultural and pastoral communities.

8. The needs assessment could also serve to identify which parts of the value chain are already being targeted by local industry and provide a set of actions that can be considered to build up local green industries.

This will also be addressed in output 2.5 as described above.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:			
Project Preparation Activities Implemented	**GETF/LDCF/SCCF Amount ($)**		
	Budgeted Amount	**Amount Spent To date**	**Amount Committed**

Project scope and strategy defined, and GEF full proposal documentation prepared and approved. The following PPG Activities have been completed: •Collected and compiled baseline/situational analysis •Conducted Gender Analysis and prepared action plan •Conducted stakeholder consultations •Developed project document & CEO Endorsement Request	200,000	93,985	106,015
Total	**200,000**	**93,985**	**106,015**

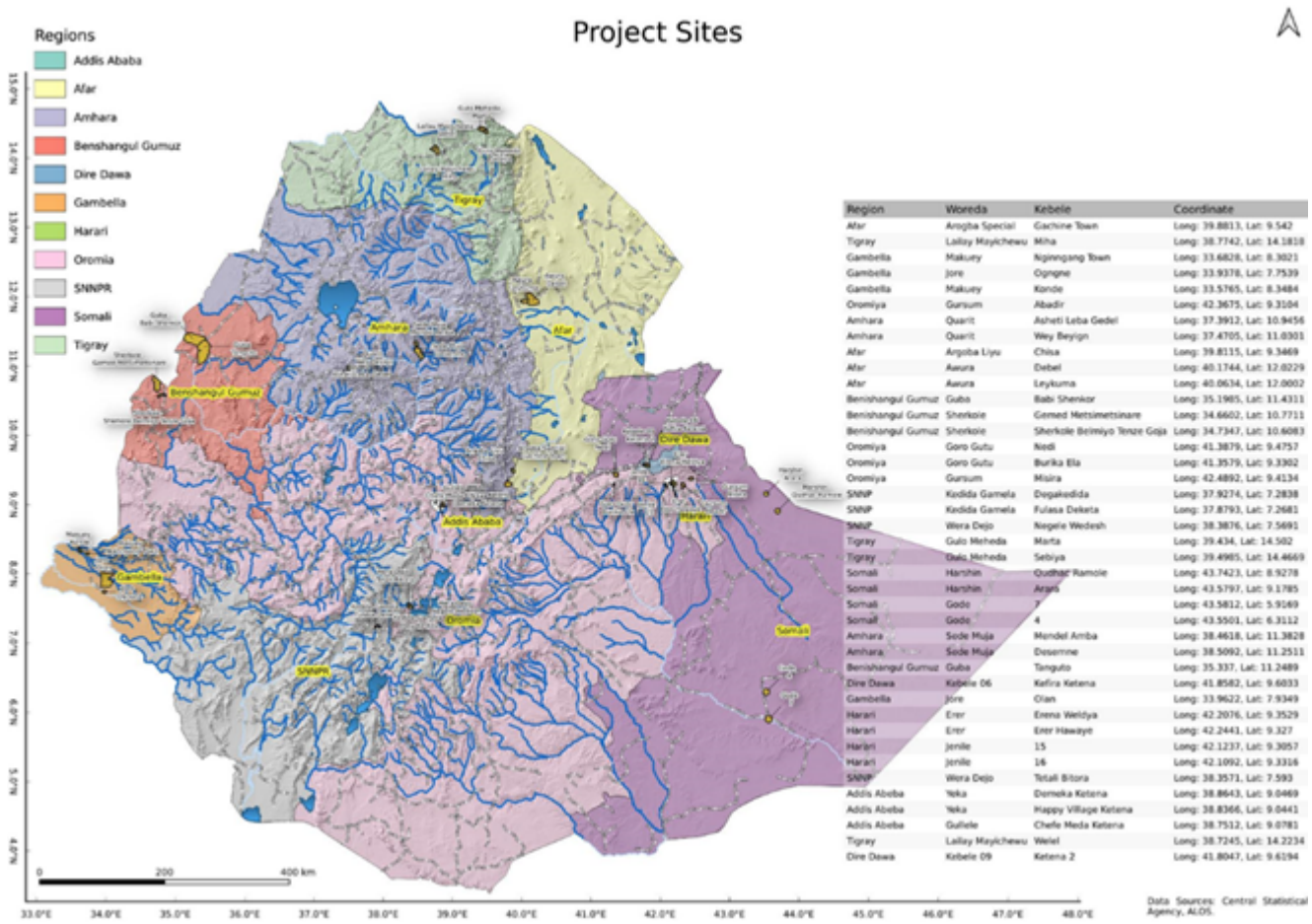
ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/CBIT Trust Funds or to your Agency (and/or revolving fund that will be set up)

n/a

ANNEX E: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.



Region	Woreda	Kebele	Coordinate
Afar	Arogba Special	Gachine Town	Long: 39.8813, Lat: 9.542
Tigray	Laliay Maychewu	Miha	Long: 38.7742, Lat: 14.1818
Gambella	Makuey	Ngiinngang Town	Long: 33.6828, Lat: 8.3021
Gambella	Jore	Ognyne	Long: 33.9378, Lat: 7.7539
Gambella	Makuey	Konde	Long: 33.5765, Lat: 8.3484
Oromiya	Gursum	Abadir	Long: 42.3675, Lat: 9.3104
Amhara	Quarit	Asheti Leba Gedel	Long: 37.3912, Lat: 10.9456
Amhara	Quarit	Wey Beyign	Long: 37.4705, Lat: 11.0301
Afar	Argoba Liyu	Chisa	Long: 39.8115, Lat: 9.3469
Afar	Awura	Debel	Long: 40.1744, Lat: 12.0229
Afar	Awura	Leykuma	Long: 40.0634, Lat: 12.0002
Benishangul Gumuz	Guba	Babi Shenkor	Long: 35.1985, Lat: 11.4311
Benishangul Gumuz	Sherkole	Gemed Metsimetsinare	Long: 34.6602, Lat: 10.7711
Benishangul Gumuz	Sherkole	Sherkole Belmiyo Tenze Goja	Long: 34.7347, Lat: 10.6083
Oromiya	Goro Gutu	Nedi	Long: 41.3879, Lat: 9.4757
Oromiya	Goro Gutu	Burika Ela	Long: 41.3579, Lat: 9.3302
Oromiya	Gursum	Misira	Long: 42.4892, Lat: 9.4134
SNNP	Kedida Gamela	Degakedida	Long: 37.9274, Lat: 7.2838
SNNP	Kedida Gamela	Fulasa Deketa	Long: 37.8793, Lat: 7.2681
SNNP	Wera Dejo	Negele Wedesh	Long: 38.3876, Lat: 7.5691
Tigray	Gulo Meheda	Marta	Long: 39.434, Lat: 14.502
Tigray	Gulo Meheda	Sebiya	Long: 39.4985, Lat: 14.4669
Somali	Harshin	Qudhac Ramole	Long: 43.7423, Lat: 8.9278
Somali	Harshin	Araris	Long: 43.5797, Lat: 9.1785
Somali	Godo	7	Long: 43.5812, Lat: 5.9169
Somali	Godo	4	Long: 43.5501, Lat: 6.3112
Amhara	Sede Muja	Mendel Amba	Long: 38.4618, Lat: 11.3828
Amhara	Sede Muja	Desernne	Long: 38.5092, Lat: 11.2511
Benishangul Gumuz	Guba	Tanguto	Long: 35.337, Lat: 11.2489
Dire Dawa	Kebele 06	Kefira Ketena	Long: 41.8582, Lat: 9.6033
Gambella	Jore	Olan	Long: 33.9622, Lat: 7.9349
Harari	Erer	Enena Weldiya	Long: 42.2076, Lat: 9.3529
Harari	Erer	Erer Hawaye	Long: 42.2441, Lat: 9.327
Harari	Jenile	15	Long: 42.1237, Lat: 9.3057
Harari	Jenile	16	Long: 42.1092, Lat: 9.3316
SNNP	Wera Dejo	Totali Bitora	Long: 38.3571, Lat: 7.593
Addis Ababa	Yeka	Dorneka Ketena	Long: 38.8643, Lat: 9.0469
Addis Ababa	Yeka	Happy Village Ketena	Long: 38.8366, Lat: 9.0441
Addis Ababa	Gullele	Chefe Meda Ketena	Long: 38.7512, Lat: 9.0781
Tigray	Laliay Maychewu	Welel	Long: 38.7245, Lat: 14.2234
Dire Dawa	Kebele 09	Ketena 2	Long: 41.8047, Lat: 9.6194

ANNEX F: Project Budget Table

Please attach a project budget table.