Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

Climate Change Adaptation in Forest and Agricultural Mosaic Landscapes

Part I: Project Information

GEF ID
10186

Project Type
FSP

Type of Trust Fund
LDCF

Project Title
Climate Change Adaptation in Forest and Agricultural Mosaic Landscapes

Countries
Zambia,

Agency(ies)
FAO,

Other Executing Partner(s)	Executing Partner Type
Ministry of Lands and Natural Resources	Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Private sector, Livelihoods, Ecosystem-based Adaptation, Community-based adaptation, Adaptation Tech Transfer, Innovation, Least Developed Countries, Climate resilience, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approache, Strengthen institutional capacity and decision-making, Stakeholders, Beneficiaries, Local Communities, Civil Society, Community Based Organization, Non-Governmental Organization, Type of Engagement, Private Sector, Individuals/Entrepreneurs, SMEs, Communications, Awareness Raising, Education, Gender Equality, Gender Mainstreaming, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Capacity Development, Access and control over natural resources, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Generation, Training, Knowledge Exchange, Peer-to-Peer

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

60 In Months

Agency Fee($)

666,872

Submission Date

4/1/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	LDCF	6,019,700	24,599,059
CCA-2	LDCF	1,000,000	4,921,941
	Total Project Cost ($)	**7,019,700**	**29,521,000**

B. Indicative Project description summary

Project Objective

To increase the resilience of productive landscapes and rural communities through innovations and technology transfer for climate change adaptation

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
1. Strengthening the management of productive landscapes for climate resilience	Technical Assistance	1.1 Improved community managed forests and agricultural landscapes resilient to climate change Indicators (actual indicators to be selected during PPG phase): (i) 400,000 ha of land under climate-resilient management (core indicator CCA 1)	1.1.1. Capacity building program for forestry extension services, community managers and support institutions, to strengthen the operationalization of Community Forestry. 1.1.2 Community structures for forest landscape management (community forestry management committees, Forest user group leaders, local traditional leadership and local government ward development committees) strengthened and provided with tools and skills on adaptation measures including: integrated land use planning, participatory climate risk assessments, SFM and agroforestry. 1.1.3 Simple and inclusive community forest landscape management plans targeted at building climate resilience into production landscapes and value chains developed. 1.1.4 Forest and farm producers (FFPOs) capacity has been developed to participate in policy platforms for landscape management, including access to innovative mobile technologies for mapping using smart phones.	LDCF	1,289,000	1,600,000

2. Promoting innovations and technologies in forestry value chains including charcoal and NTFPs.	Investment	2.1 Improved resilience and efficiency of value chains based on innovative business models, technologies and practices. Indicators: (i) 1100 people with improved business arrangements (of which 50% women) (ii) Small scale NTFP enterprises have contributed to the creation of ~ 10,000 jobs at community landscape level. (iii) % charcoal production in target areas certified using new “green charcoal” participatory guarantee system (PGS).	2.1.1 Support provided to the scale-up of sustainable charcoal technologies and certification system (Green charcoal). 2.1.2 Forest and farm producers (FFPOs) have identified and selected NTFP value chains and developed bankable business plans for investments (with focus on diversifying NTFP with climate-resilient underutilized products and their related technologies). 2.1.3 FFPOs have developed their NTFP production (e.g. honey, tamarind, baobab, dry and fresh mushrooms) into small-scale forest enterprises. 2.1.4 Exchange visits for key stakeholders organized to increase their knowledge and share experiences on community based SFM and community forest enterprises.	LDCF	3,562,429	21,621,000

3. Enhancing diversified livelihood strategies for climate resilience	Technical Assistance	3.1 Diversified livelihood strategies based on the sustainable management and use of agrobiodiversity (focus on resilient underutilized traditional crops and crop wild relatives). Indicator: (i) 144,000 people (50% women) benefiting from sustainable value chains based on agrobiodiversity.	3.1.1 Knowledge, including traditional, on underutilized crops in target landscapes consolidated. 3.1.2 Community level participatory selection of suitable climate-resilient species using traditional knowledge, farmer field schools, field days (with focus on neglected and underutilized crops, here) conducted with FFPOs and guidelines for sustainable management and promotion developed and implemented (to reach about 144,000 beneficiaries). 3.1.3 Support provided to producer groups and their associations in the development of inclusive value chains for selected crops (e.g. establishment of community based seed banks and certification system, production, marketing markets etc).	LDCF	1,434,000	5,200,000

4. Project monitoring, evaluation and dissemination of results	Technical Assistance	4.1 Project implemented, monitored, evaluated and disseminated efficiently and in new and innovative ways 4.2 Project effectively linked to global and regional DSL IP knowledge exchange hubs	4.1.1 A sound results based Monitoring and Evaluation system has been developed 4.1.2 Midterm and final evaluations have been successfully conducted 4.1.3 Participatory monitoring approaches using mobile telephone based mapping technologies are applied 4.1.4 Best practices of NTFP management, small scale forest enterprises and CSA have been successfully disseminated 4.1.5 Opportunities to scale up best practices have been identified. 4.2.1 Participation in regional and global knowledge management events (organized by the DSL IP) and on-the ground south-south exchanges with the DSL IP child projects. 4.2.1 Participation in regional and global knowledge management events (organized by the DSL IP)	LDCF	400,000	600,000
				Sub Total ($)	6,685,429	29,021,000

Project Management Cost (PMC)

	LDCF	334,271	500,000
	Sub Total($)	**334,271**	**500,000**
	Total Project Cost($)	**7,019,700**	**29,521,000**

C. Indicative 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($)
Donor Agency	European Development Fund	Grant	Investment mobilized	12,000,000
Government	Ministry of Finance; Ministry of National Planning	Grant	Investment mobilized	4,500,000
GEF Agency	FAO	Grant	Recurrent expenditures	5,021,000
Donor Agency	The Zambia Integrated Forest Landscape Program. Multi donor trust fund, managed by the World Bank	Grant	Investment mobilized	5,000,000
Government	Ministry of Lands and Natural Resources; Ministry of Water, Sanitation and Environmental ProtectionMinistry of Lands and Natural Resources; Ministry of Water, Sanitation and Environmental Protection	In-kind	Recurrent expenditures	3,000,000
			Total Project Cost($)	**29,521,000**

Describe how any "Investment Mobilized" was identified

“Not Applicable”

D. Indicative 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($)	Fee($)	Total($)
FAO	LDCF	Zambia	Climate Change		7,019,700	666,872	7,686,572
				Total GEF Resources($)	**7,019,700**	**666,872**	**7,686,572**

E. Project Preparation Grant (PPG)

PPG Amount ($)	PPG Agency Fee ($)
200,000	19,000

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

Core Indicators	Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

1) The global adaptation problems, root causes and barriers that need to be addressed

Zambia is a landlocked country in southern Africa, located between latitudes 8° and 18°S, and longitudes 22° and 34°E. The population amounts to approximately 15 million with the majority residing in rural areas. The country is ranked number 139 out of 188 countries in the Human Development Index report of 2015 with 74% of the population living below the PPP (purchasing power parity) rates of $US 1.25 a day. Zambia's climate is characterized as sub-tropical - tropical, but varies with elevation and with annual temperatures between 13-34^{o} C spread over three seasons (hot-dry; cool-dry; and rainy season) and with annual precipitation reaching from 1200 mm in the north to 600mm in the south[1].

Agriculture is one of the key sectors of the economy contributing between 18-20% to the Gross Domestic Product (GDP)[9]. Zambia's agriculture is characterized as mainly being rain-fed with maize monoculture systems being dominant throughout the country[2]. It is estimated that approximately 72% of Zambia's small scale farmers cultivate an area less than 2 ha and are considered among the poorest group in the country[3].

Forests are a critical resource in Zambia, playing a key role in the national development agenda of the country covering 70% of the country[10] and provide a direct source of livelihoods for a large proportion of the Zambian population through both timber and non-timber forest products (NTFPs) in particular selling of charcoal and firewood which are important contributors to household incomes. It is estimated that 65% of Zambia's population resides in rural areas[8] and are thus directly and indirectly dependent on the forests.

Zambia is divided into three agro ecological regions characterized by their differences in precipitation patterns and soil types[9], see figure 1 for an illustrated map and table 1 below for a detailed description and difference between the three regions.

Table 1. Description of agro-ecological regions[4].

	Region I	Region II	Region III
Description	Region I occupies an area of 17.3 million ha across the South, East, Western, and Central province. It is the driest part of the country with an average precipitation of 800 mm/year and the shortest cropping season ranging from 80-120 days. It is best suited for drought resistant crops such as millet, sorghum, sesame and cotton. Suitable for cattle raising with the exception of the areas adjacent to the Zambezi valley due to the presence of tsetse flies.	Region II is the largest region covering 27.4 million ha and it is divided amongst two sub regions. The average rainfall is 800-1000 mm/ year and the crop planting period ranges from 100-150 days. Region IIa is found within Central, Lusaka, Southern and Eastern provinces which in general contains fertile soils suitable for maize, cotton, tobacco, sunflower, soybeans, groundnut and wheat. Region IIb is found in the Western Province with more sandy soils suitable for cashew nuts, rice, cassava, millet, vegetables, timber production and livestock production.	Region III has the highest rainfall of 1000-1500 mm/year. The crop production period ranges from 120-150 days. The region cuts across the Muchinga, Northern, Luapula, Copperbelt, Northwestern and Central Provinces. Common crops found are millet, cassava, sorghum, beans, groundnuts, coffee, sugar cane, rice, pine apple.

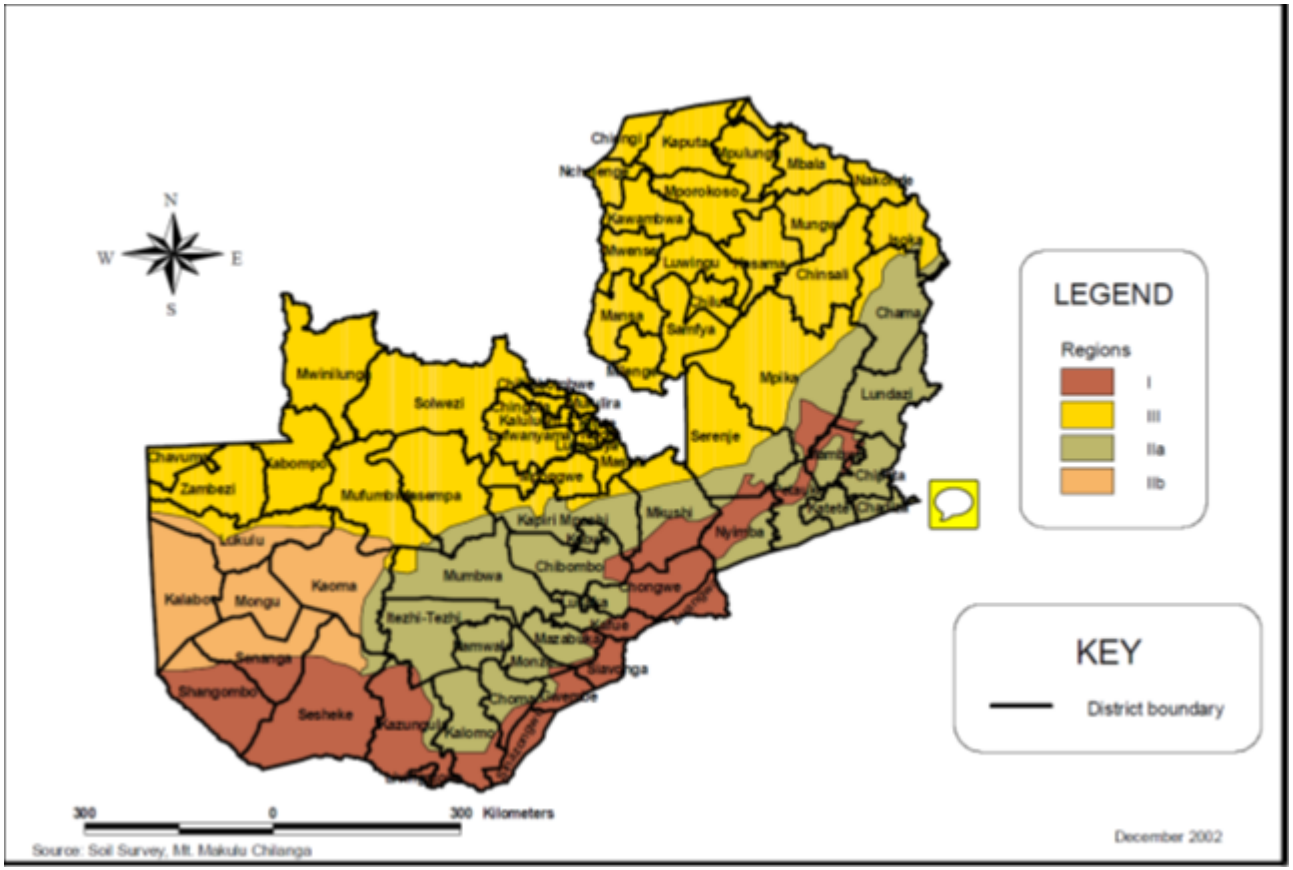

Figure 1. District map. Haggblade, S. &Tembo, G. 2003. Conservation farming in Zambia. EPTD Discussion paper no. 108.

Farmers across agro-ecological regions I and II are facing the most difficult challenges in sustaining their livelihoods.

Farming is mainly concentrated on maize and sorghum as the staple food, but outputs are low, due to the challenging climate conditions (little and unpredictable precipitation and increasing temperatures) and low input farming systems. Maize yields throughout the country are considered very low, ranging from 0.5 to 1.0 t/ha[5] which is hardly enough to sustain an average farming family. Low maize yields are mainly a result of poor and degraded soils, and limited use of fertilizers (both chemical and manure) due to the limited purchasing power that farmers have. Farmers in region I and II, therefore, face a multitude of challenges in sustaining their livelihoods and are highly dependent on the products and services from the ecosystem base. 90% of rural households are dependent on biomass in order to meet their energy requirements[6]. Forests provide a buffer for the majority of the resource poor rural communities who often have limited or no access to sources of subsistence income or employment[7]. Forest landscapes in particular provide rural poor communities with a large range of timber and NTFPs both for home consumption and for selling e.g. food, fodder, medicine, honey, insects, charcoal and firewood. NTFPs represent a unique opportunity for rural poor communities as they are often unique to their specific ecosystem, landscape and local market

and will allow communities to significantly improve their livelihoods and resilience to environmental and socio-economic risks. However, this is only possible if they are exploited sustainably in combination with sound management practices such as Sustainable Forest Management (SFM) and other resilience and adaptive strategies.

This heavy reliance on natural resources and forests in particular coupled with weak management systems due to inadequate tenure systems are at present the one of the main causes behind Zambia's high deforestation rate, estimated at 250,000-300,000 hectares per year[8], not to mention the continuous degradation of forest resources due to mainly biomass collection, particularly for charcoal production. Rural electrification rate continues to remain low at 3.3% and only 15.8% of the population has access to modern cooking fuel while almost 60% still rely on fuel wood for cooking. With increasing pressures and dependencies on the forests resources, their carrying capacity to sustain the population is rapidly declining. With an annual population growth between 2.5% - 3.2% in the period of 2000 - 2015 (HDI report 2015) the demand for agricultural land will lead to increased deforestation and degradation of forests while also the demand for NTFPs and higher reliance on forests will continue to grow. Furthermore, rural areas offer very few job opportunities outside subsistence farming, forcing communities to rely even more on forest and land resources. In particular for younger people, future prospects of job opportunities and sustainable livelihoods remain difficult. Pressures to the existing forest resources will therefore continue to grow.

Fires also pose a serious threat to the land use and forestry sectors. Fires form an integral part of the traditional farming systems such as the Chitemene system, which is a form of traditional agroforestry whereby harvested wood is burnt on the land and used for fertilization purposes. This adds additional pressure on forest resources. Additional fire use includes vegetation control, clearing of fields, provision of potash and pasture management. However, when not controlled correctly, the fires spread to adjacent areas and become uncontrollable. Bushfires burn up to 25% of the total land area annually[9].

Zambia has experienced an increase in the frequency and intensity of droughts and floods over the last 30 years with dramatic impacts on food security and livelihoods as well as human infrastructure. In the period 2000-2010 Zambia experienced three droughts and two floods with severe consequences on crop and livestock production. The drought reported in 2005 left approximately 1.2 million people starving[10]. Furthermore, the economic losses from droughts and floods are estimated at around 100 million USD every year[10]. Seasonal rainfall has decreased dramatically during 1940-2000 with the largest decrease reported from 1971-2000 of 58 mm especially in Southern, Western, Central and North-Western provinces[9].

The projected impacts of climate change on the Zambian republic[11] are as follows.

Temperature

- Mean annual temperature is projected to increase by 1.2 to 3.4ºC by 2060 and 1.6 to 5.5ºC by 2090. The range of change predicted under any one emissions scenario is between 1.5 and 2.5ºC.
- Regionally, the rate of warming is slightly more rapid in the southern and western regions of Zambia.
- All projections indicate a substantial increase in the number of both days and nights considered 'hot' in the current climate.
- All projections indicate that the number of days and nights considered 'cold' will decrease. In addition, 'cold' nights will decrease in frequency more rapidly than 'cold' days.

Rainfall

- Projections of mean rainfall do not indicate large changes in annual rainfall, however, seasonally the range of projections from different models is large. Ensemble projections indicate a decrease in September-October-November (SON) rainfall by 2090 while December-January-February (DJF) is set to increase by 2090, particularly in the north-east of the country.
- The proportion of total rainfall that falls in heavy events is projected to increase annually, but mainly in DJF and March-April- May (MAM).
- Projections indicate that maximum 1 and 5 day rainfall events may increase in magnitude in DJF and MAM.

A recent study based on average losses from 1976-2007 estimated that climate variability from 2006-2016 would reduce agricultural growth by 1% each year, with an economic loss of $2.2bn compared to a reference scenario with no extreme climatic events[12].

This is especially true for agro-ecological regions I and II which are considered to be the most vulnerable parts of Zambia according to the National Adaptation Programme of Action (NAPA)[10]. Rainfall data analysis shows that Region I was found to become dryer in the period of 1970-2000 and has been determined to be the most vulnerable of the three agro-ecological regions[9]. Data on maize shows that most varieties will not mature due to a shortening of the growing season especially for region I and II[10].

Climate projections for the two most vulnerable areas indicate that especially region I will become increasingly vulnerable to climate change due to extreme temperatures and droughts and region II facing cumulative climate variability i.e. increasing temperatures and decreasing precipitation[9]. Region I and II experienced average rainfalls over the last 30 years of 684 mm and 840 mm respectively[10], much less than the set standards for the regions (800 mm and 800-1000 mm respectively). With maize yields being already low farmers face and will face severe challenges in meeting their daily food intakes and will rely heavily on the land-based resources as a buffer. Droughts are already known to cause massive crop failures in especially the southern and western part of the country, parts of Region I and II[10].

The natural resource base in region I and II is already under severe stress from climate variability and change. The miombo woodlands which are the most important woodlands of Zambia cover an approximated 60% of the total area of the country and provide millions of rural farmers with timber and NTFPs and are a very important habitat for wildlife all together providing a vital source for sustaining livelihoods[10]. Studies indicate that within a low rainfall projection for the future (such as region I) the area under miombo woodlands will decrease with up to 50% [10] thus leaving behind millions of poor rural farmers without a safety net.
Farmers across region I and II are already struggling to make ends meet due to poor performance of their existing farming systems. Farmers therefore rely more and more on natural resources to complement their livelihoods. This dependency is growing as the population grows rapidly, adding additional pressure on the environment. Climate variability and change compounds this by negatively affecting crop production and forest regeneration, making the ecological resource base even further degraded and with a declining carrying and regenerative capacity. This ecological vulnerability affects primarily the poorest households with little or no means of adapting their livelihoods to the challenging environments and diversifying their farming systems.

The Government of Zambia recognizes the importance of an integrated landscape approach in the light of climate variability and change. The government has initiated with partners several programs and projects. Some prominent projects to mention include activities on gathering information on forest resources across the country in order to better manage forests and thereby decrease their vulnerability, notably the Integrated Land Use Assessment I and II and the numerous REDD+ initiatives (UN, Norway, Finland and USAID supported) and the Zambia Integrated Forestry Management programme (2018-2021) with support from the World Bank. Zambia has for many years implemented numerous forests and land management initiatives such as national and local forest reserves, joint forest management, certification of forests and community based natural resources management schemes.

Despite the numerous interventions, several hindering factors remain in order to fully develop sound natural resource management schemes to reduce vulnerability and support climate resilient livelihoods of resource-poor rural communities. The following barriers have been identified:

Continued heavy dependency on forest resources as safety nets

Zambia continues to experience high levels of deforestation and forest degradation mainly due to unregulated charcoal production and firewood collection and agricultural expansion. However, behind these drivers lies the main cause of weak land use management due to inadequate tenure systems. With a growing population these trends will only continue to increase and lead to further destruction of the safety nets of millions of poor rural Zambians. When times are harsh, communities rely on forests as a last solution providing food, fodder, medicine and many other services. Existing farming systems are not equipped to cope with the pressures from climate change impacts such as droughts and floods and will fail to deliver the goods and services they normally provide to communities. Such failures will as well lead to increased dependency on forest resources as an alternative for survival. Farmers harvest a multitude of NTFPs from the forests such as fruits, tubers, bulbs, bark products, traditional medicines, fish poisons, dyes (fabrics and textiles), leafy vegetables, mushrooms, honey and edible insects.

With increasing pressures on the forests, their capacity to sustain the livelihoods of a growing population with a variety of NTFPs, is rapidly declining. Climate change will contribute to an increase in the dependency on forests, and thus exacerbate the already grave situation and future capacity of forest ecosystems and their surrounding landscapes. Communities are stuck in a vicious cycle with few alternatives, or ways of diversifying their livelihoods.

Weak tenure system, landscape planning and management at community level

A weak tenure system regarding land administration at community level where the majority is under customary management is hindering the Government and communities in undertaking the long term ideals and strategies for improved land use management by communities. Without clear tenure rights and title deeds, communities are not able to properly invest in their surrounding landscapes and climate-resilient farming systems with long term prospective. The Forest Act No 4 of 2015 provides for community forest management and improved general systems. However, its implementation has been hampered by limited capacities at difference, hence the proposal to enhance capacities to speed up and strengthen its implementation.

There continues to be a lack of focus on the management of the broader understanding of the landscapes at community level, the mosaic structure of mixed croplands, forests, agroforests and intermediary connected parcels. These structures all make up a unique landscape of which communities are so dependent but yet, not able to manage sustainably. With little information, knowledge and focus, these “smaller” landscapes are degrading at a fast rate, and will soon not be able to sustain the livelihoods of millions of rural poor communities. Without proper management of natural resources and planning these community landscapes are very vulnerable to climate change, and are already under severe stress from climate variability.

2) the baseline scenario or any associated baseline projects

The Government of the Republic of Zambia is implementing a number of projects and programmes relating to natural resource management and to improving the livelihoods of rural poor communities. Of particular importance and relevance is the work done to advance Community Forestry in Zambia. As mentioned, Zambia has developed and adopted the Forest Act No. 4 of 2015 which aims, amongst others, to provide for the participation of local communities and stakeholders in sustainable management of forest ecosystems and biological diversity; provide for the conservation and use of forests and trees for the sustainable management of forest ecosystems. The Act enables the Government to involve communities more in forest management at the community and local level and furthermore provide communities with more ownership of the natural resources upon which their livelihoods are so dependent. Community Forestry regulations were subsequently approved in 2017.

The Forest and Farm Facility (FFF), a multi-donor partnerships' programme, hosted by FAO and working in numerous countries worldwide including in Zambia. The goal of the FFF is "to support forest and farm producers and their organizations to enable 'climate Resilient Landscapes and Improved Livelihoods'. These producers are key players in reducing poverty and significant contributors for achieving the Sustainable Development Goals (SDGs) and Nationally Determined Contributions (NDCs) to figh climate change as part of the Paris agreement. FFF promotes sustainable forest and farm management by supporting local, national, regional and international member-based organizations and platforms for effective engagement in policies and investments and these forest and farm producer organizations (FFPOs) - representing women and men, smallholder families, indigenous peoples and local communities - are the primary agents of change for resilient landscapes and improved livelihoods. In Zambia the FFF work focuses on greening the wood fuel value chains in which a number of innovative approaches and technologies have been developed and successfully piloted – one key innovation being a Participatory Guarantee System for certifying sustainable charcoal. The second phase of FFF (2018 – 2022) serves as an important component of the baseline. Building on the success of phase I, FFF phase II will support greater inclusion of producers in policy initiatives; and will increase business and technical capacity of FFPOs (enterprise development and business incubation) so these can become profitable while scaling up their support to a greater number of members especially poor and vulnerable marginalized groups.

The Sustainable Intensification of Smallholder Farming Systems in Zambia (SIFAZ - USD 12,000,000) is implemented by the Ministry of Agriculture and technically supported by FAO as part of the 11th European Development Fund National Indicative Programme (NIP) 2014-2020 for cooperation between the Republic of Zambia and the European Union. It contributes to the NIPs objectives of (1) improved and sustainable rural livelihoods, (2) improved nutrition and food security, and (3) improved environmental sustainability.

The 4.5 year (April, 2019 – September, 2023) project will contribute to reducing rural poverty and improving rural livelihoods in Zambia. The project will have an impact on increasing smallholder farmers' productivity, income and employment opportunities while pursuing a gender sensitive approach. The specific objective is to improve sustainable and climate smart crop production and land management practices.
In addition to the above programmes, the following projects in table 2 have been identified as co-financing projects that will make contributions to the objectives of the proposed project in the form of knowledge, innovative approaches and practices. that contributing to solving the environmental challenges:

Table 2. Overview of additional co-financing projects

Source	Description	Budget ($US)
The Zambia Integrated Forest Landscape Program (Multilateral Fund (Germany, Norway, United Kingdom and United States) and managed by the World Bank)	The program aims at promote reduced greenhouse gas emissions from the land sector in the Luangwa valley of the Eastern Province, while simultaneously improving rural livelihoods as well as wildlife conservation. The program will run for ten years from. Initial funding commitments have not been published, but, the program does seek to achieve an annual reduction of 3,5 million tons CO_2e per annum. As such funding for the program (using a $5 per ton of CO2e value) could be as much as $17,5 million per annum. The project will operate from 2015 – 2025.	5,000,000
FAO	Building the Basis for implementing the Save & Grow approach - Regional strategies on sustainable and climate-resilient intensification of cropping systems	300,000
FAO	Supporting Developing Countries (Zambia) to integrate the Agricultural sectors into National Adaptation Action Plans	250,000
FAO	Strengthening integrated adaptation planning and implementation in Southern Africa Smallholder Agriculture.	380,000
FAO	Strengthening climate resilience of agricultural livelihoods in Agro-Ecological Regions I and II in Zambia	2,100,000

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project

The alternative LDCF project will support removal of barriers hindering the country, and in particular the communities in adapting and diversifying their livelihoods through climate-resilient landscape management, as an overall means of reducing human and ecological vulnerability.

Forest and farm producers (smallholder farmers) in the three provinces (NorthWestern, Southern and Western Province) will be directly targeted by the project, specifically including the following 11 districts: Mushindamo, Mwinilunga, Kasempa, Choma, Kalomo, Nyimba, Petauke, Kazungula, Gwembe Sesheke and Sioma. The direct beneficiaries will represent approximately 18,000 people. The districts in North Western Province districts are selected on the basis of important headwaters they protect. The rest of the districts are selected given their specific vulnerability to climate change risks, primarily increasing droughts, variability of rainfall and occasional floods, coupled with high incidence of poverty. Target beneficiaries currently have low adaptive capacities to cope with climate impacts or sustain livelihoods in the face of climate change.

Component 1. Strengthening the management of productive landscapes for climate resilience

The component builds on the Government's programme on community forestry (operationalizing the Forest Law and Community Forestry Regulations). The slow implementation of the Law and regulations has clearly demonstrated an important gap that needs to be addressed: weak capacities of Government forestry extension services, community managers and support institutions to facilitate wide-scale operationalization of community forestry.

Therefore the component will first focus on strengthening the capacities of forestry extension services and support institutions to accompany communities to gain rights to access and use forests and to develop and implement forest landscape management plans that incorporate climate change adaptation strategies and practices. Equally important will be the strengthening of community structures, providing relevant tools and training for participatory (and inclusive) development and implementation of simple community landscape management plans. The planning exercises will be based on participatory climate risk assessments and mapping of climate hotspots in the landscapes, also identifying highly degraded areas for restoration.

Outcome 1.1 Improved community managed forests and agricultural landscapes resilient to climate change

Output 1.1.1. Capacity building program for forestry extension services, community managers and support institutions, to strengthen the operationalization of Community Forestry.
Output 1.1.2 Community structures for forest landscape management (community forestry management committees, Forest user group leaders, local traditional leadership and local government ward development committees) strengthened and provided with tools and skills on adaptation measures including: integrated land use planning, participatory climate risk assessments, SFM and agroforestry.
Output 1.1.3 Simple and inclusive community forest landscape management plans targeted at building climate resilience into production landscapes and value chains developed.
Output 1.1.4 Forest and farm producers (FFPOs) capacity has been developed to participate in policy platforms for landscape management, including access to innovative mobile technologies for mapping using smart phones.

Component 2. Promoting innovations and technologies in forestry value chains including charcoal and NTFPs
Building on the achievements of FFF, the proposed project with support the scale-up and transfer of FFF innovations in vulnerable target landscapes and communities, and capitalize on FFPOs structures to promote climate-resilient value chains based on diverse non-timber forest products (NTFP). Focus will also be on scaling-up sustainable charcoal production recognizing that charcoal is a critical source of enegy, employment especially in rural areas, income and food security. With the growing demand for charcoal, its sustainable production must be ensured to guarantee its continued contribution to improving livelihoods, without compromising the resilience of forest landscapes. Within the scope of community landscape management plans (output 1.1.3), the work on greening the charcoal value chains will include enhancing awareness of new charcoal regulations (developed under FFF), scaling up the formation of charcoal producer groups, transfer of improved charcoal production technologies etc.

As mentioned, great potential exists in the target landscapes to develop and strengthen value chains for diverse NTFPs. FFPOs will be supported in mainstreaming climate change adaptation into their operations - in the identification and selection of NTFP value chains for development or strengthening (taking into consideration climate risks), development of bankable business plans for investments and developing their NTFP production into small-scale forest enterprises.

Important to mention that at present, the processing of NTFPs often involve primarily women. Scaling up NTFP production and marketing will only help increase this opportunity for women and will furthermore help create opportunities for young people who often migrate to urban areas in search of job opportunities.

Outcome 2.1 Improved resilience and efficiency of value chains based on innovative business models, technologies and practices

Output 2.1.1 Support provided to the scale-up of sustainable charcoal technologies and certification system (Green charcoal).
Output 2.1.2 Forest and farm producers (FFPOs) have identified and selected NTFP value chains and developed bankable business plans for investments (with focus on diversifying NTFP with climate-resilient underutilized products and their related technologies).
Output 2.1.3 FFPOs have developed their NTFP production (e.g. honey, tamarind, baobab, dry and fresh mushrooms) into small-scale forest enterprises.
Output 2.1.4 Exchange visits for key stakeholders organized to increase their knowledge and share experiences on community based SFM and community forest enterprises.

Component 3. Enhancing diversified livelihood strategies for climate resilience

Most communities in the target landscapes rely on unproductive farming systems (mainly maize and millet), which are highly vulnerable to climate change. Component 3 will therefore focus on diversifying livelihoods based on resilient underutilized traditional crops and crop wild relatives in adjacent agricultural lands – which will also contribute to reducing pressure and degradation of forest products as well as biodiversity conservation. A similar approach to that in component 2 (support to FFPOs in the selection of underutilized crops and value chain development).

Outcome 3.1 Diversified livelihood strategies based on the sustainable management and use of agrobiodiversity
Output 3.1.1 Knowledge, including traditional, on underutilized crops in target landscapes consolidated. This will be done through community consultative meetings in all targeted areas to map traditional knowledge and mobilization of seed materials for multiplication, establishment of Farmer field schools and facilitating exchange visits.
Output 3.1.2 Community level participatory selection of suitable climate-resilient species using traditional knowledge,farmer field schools, field days and other awareness campaigns/events (with focus on neglected and underutilized crops, here) conducted with FFPOs and guidelines for sustainable management and promotion developed to reach out to 144,000 beneficiaries..
Output 3.1.3 Support provided to producer groups and their associations in the development of inclusive value chains for selected crops (e.g. establishment of community based seed banks and certification system, production, marketing etc).

Component 4. Project monitoring, evaluation and dissemination of results

Component 4 will elaborate a sound monitoring and evaluation system to to ensure that the implementation of the project will be as sustainable and transparent as possible. The component will furthermore capture various best practices and innovations experienced and developed by the project as relates to community based natural resource management across the target landscapes and various “models” of intervention and disseminate them through publications, seminars, and other communication tools to ensure widespread sharing of the results.

Outcome 4.1 Project implemented, monitored, evaluated and disseminated efficiently
(please also see knowledge management section)
Output 4.1.1 A sound results based Monitoring and Evaluation system has been developed.

Output 4.1.2 Midterm and final evaluations have been successfully conducted.
Output 4.1.3 Participatory monitoring approaches using mobile telephone based mapping technologies are applied.
Output 4.1.4 Best practices of NTFP management, small scale forest enterprises and CSA have been successfully disseminated.
Output 4.1.5 Opportunities to scale up best practices have been identified

Outcome 4.2 Project effectively linked to global and regional DSL IP knowledge exchange hubs
Output 4.2.1 Participation in regional and global knowledge management events (organized by the DSL IP) and on-the ground south-south exchanges with the DSL IP child projects.

4) Alignment with GEF focal area and/or Impact Program strategies

The proposed project presents strong synergies with GEF-7 priorities both in terms of focal areas and the impact programs. In particular, the project interventions are expected to generate GEBs through improved landscape management and prevention of land degradation. Additionally, actions will also contribute to climate change mitigation as a result of increased carbon sequestration from avoided deforestation while strengthening the protection of biodiversity within one of the world's key dryland forest ecosystem.

The geographical scope of the proposed project falls within the heart of the Southern Africa Miombo woodlands, which is also an ecoregion that forms an essential part of the GEF-7 Sustainable Forest Management (SFM) Dryland Sustainable Landscape Impact Programme (DSL IP). The overarching goal of the DSL IP is to ensure resilience of agro-ecological systems and forests in the drylands by reversing degradation in these systems, building sustainable livelihoods through SFM/SLM practices and improved market access through effective private sector engagement, and improving coherence in delivery across sectors through a landscape-level approach. The vision is to maintain overall ecosystem integrity while concomitantly ensuring robust and adaptive collaboration across all key sectors and stakeholders, including the private sector, from local to national level.

The proposed LDCF project is fully aligned to the objectives of the DSL IP and the project activities would also be complementary to the potential participation of Zambia in the DSL IP given that the LDCF interventions are geared towards building climate resilience into production landscape whereas a conservation focus under the DSL would complete an integrated landscape intervention.

5) incremental/additional cost reasoning and expected contributions from the baseline, the LDCF, and co-financing

Additional cost reasoning

Without LDCF

Without the proposed intervention, Zambia will continue to experience one of the highest deforestation rates in the region further exacerbating vulnerability climate change, despite an enabling Forest Act No.4 of 2015. This is because implementation of the Forest Act has been hindered by the lack of capacities at various levels. Without funding, the community will not be mobilized, organized and informed on how to obtain legal ownership of community forests; and how to manage forests sustainably for improved resilience while obtaining multiple benefits of products and services from forests.

Other negative impacts (especially arising from non-protection of forests in the country's north western province will include loss of biodiversity, ecosystem degradation, including degradation of the country's headwaters and altogether increased vulnerability to climate change

There will be continuous work taking place as relates to addressing food security and nutrition, conservation agriculture, tree planting and REDD+. Communities will gain better knowledge on improved farming and forest management, however without any long term durability as knowledge is rarely based on community ownership and as such communities will be weakly represented.

There will also be poor coordination and sharing of knowledge between such efforts and their specific sectors which will lead to leakage. Good intentions in one project and landscape unit can lead to negative impacts in another landscape unit.

With LDCF

Efforts in tackling the entire landscape surrounding communities and their livelihoods will improve coordination and integration of different sectors of which communities are involved. The landscape focus will enable communities to improve livelihoods through diversification, enhance their resilience and adaptive capacities and thus become less vulnerable to climate change. Creation of jobs through small scale forest based enterprises, technology transfer and strengthened community engagement will lead to strong leadership and management of natural resources. Landscape degradation will decrease as will deforestation and forest degradation due to a decrease in dependency on forest resources and improved sustainable forest management. Communities will also be capacitated with skills to conduct vulnerability assessments of their own landscapes thereby enabling them to make informed management decision.

The resilience of smallholder farmers and forest/farm producers in Agro-Ecological Regions I and II in Zambia in view of climate change and variability will also be increased. This will be achieved by taking a value chain approach, addressing risks posed across key stages of the value chain – planning, inputs, production and post-production.

The LDCF funding is crucial for technical assistance in wide-scale implementation of community forest management, building the resilience of vulnerable ecosystems and communities to climate change.

6. Adaptation benefits

The overall aim of the project falls within the overarching goal[13] of the GEF Programming strategy on adaptation to climate change for the Least Developed Countries Fund and the Special Climate Change Fund for the period of 2018-2022. The LDCF project in particular addresses the key priority sectors, focusing on the resilience of natural assets in the face of climate change for vulnerable communities, their livelihoods and reducing vulnerability of fragile ecosystems. In particular, the proposed LDCF project concentrates on the first two objectives of the LDCF/SCCF strategy:

Objective 1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation.
Objective 2: Mainstream Climate Change Adaptation and Resilience for Systemic Impact.

Zambia will concretely benefit from the project on several fronts.

At the national level, the project will assist the government to strengthen capacities to improve and accelerate implementation of the community forestry programme, with climate change adaptation mainstreamed into the programme.

At the landscape level natural systems are restored and equipped to counter act the negative impacts of climate change by being adapted, not only biophysically but as well through the full engagement of dependent communities and small-scale enterprises. This restoration and reforestation will allow not only the landscapes to become resilient but it will ensure that they will continue to function as safety nets for communities.

At the community level the project will enhance the adaptive capacity of communities on several levels:
1) diversification of livelihood strategies thus making communities, including small-scale enterprises, less vulnerable to climate change and furthermore enabling communities to depend less on the forests as safety nets.
2) Improved decision making on land use planning through the district monitoring systems engaging local communities. This will help not only the Government at district level and national level to better monitor forest resources but also allow communities to use the gathered information to sustainably plan their local landscapes and ecosystems enabling them to build climate resilient landscapes and livelihoods.

7. Innovation, sustainability and potential for scaling up

Innovation

Rather than re-inventing the wheel in Zambia, where there is significant experience with reforestation, rehabilitation and promotion of alternative livelihoods, the main contribution of this project is to ensure sustainability and modification of good practices to ensure that they are also resilient in the face of climate change. The focus in Zambia has so far been on REDD+ issues, thus mitigating climate change in the forest sector. The government has however not emphasized the role of adaptation for the forest sector, and more importantly for the forest dependent communities, including small-scale enterprises. Through the introduction of charcoal technologies and practices (such as improved kilns), the project presents an innovative approach to strengthen adaptation of the forest sector through diversified livelihood strategies. Sustainable charcoal production incentivizes communities to retain woodland on village land, rather than converting their forests to farms. By generating direct benefits for rural communities from natural forests, sustainable charcoal production can reduce deforestation while at the same time improve rural livelihoods through more efficient charcoal value chains, altogether enhancing both ecosystem and livelihood resilience to climate change. The project will organize charcoal producers into groups and train them on good permaculture/harvesting systems, regulated production not only coupe system. Organizing the actors in charcoal value chains, will contribute to more sustainable management (less wastage) and improved capture of value by producers, traders and by the government.This project will upscale the formation of Charcoal producer groups and engaging them in improved more effecient charcoal production techniques with less wood input. FAOs Forest and Farm Facility project is already piloting a basic participatoty Gurantee systems (PGS) certification system for monitoring compliance to sustainable charcoal production practices and this pilot will be upscaled with the LDCF initiative.

Sustainability
The project will contribute to diversification of incomes for the most vulnerable communities thus enabling these communities to find alternative livelihood sources, participating in sustainable forest management and in their monitoring. By involving the communities throughout all levels, a high degree of sustainability is reached.

Potential for scaling up

Based on the project interventions, numerous innovative practices and lessons learned will be produced. Such experiences will allow the Forestry Department and other project partners to integrate these best practices into their future work plans and programs. The valuable lessons learned from especially the 4th project component on community monitoring, will form the basis for trial in other districts. The project team will continuously throughout the project phase invite other stakeholders in the forest sector, including bi and multi-lateral partners, to learn about the experiences obtained for them to integrate in other projects and programs.

[1]Zambia's Second National Communication to the United Nations Framework Concention on Climate Change, 2014. Available online: http://unfccc.int/resource/docs/natc/zmbnc2.pdf

[2]National Adaptation Programme of Action (NAPA), 2007. Available online: http://unfccc.int/resource/docs/napa/zmb01.pdf

[3] Zambia National Agriculture Investment Plan (NAIP) 2014-2018 Under the Comprehensive Africa Agriculture Development Programme (CAADP) Final Draft. 2013. Available online: http://www.gafspfund.org/sites/gafspfund.org/files/Documents/6.%20Zambia_investment%20plan.pdf

[4]FAO, 2010. Livelihood zones analysis. A tool for planning agricultural water management investments. Zambia. http://www.fao.org/nr/water/docs/ZM_LZ_analysis.pdf

[5]FAO, 2009. Country Pasture/Forage Resource Profiles. Zambia.

[6] Bwalya, Samuel M. (2013) "Household Dependence on Forest Income in Rural Zambia," Zambia Social Science Journal: Vol. 2: No. 1, Article 6. Available at: http://scholarship.law.cornell.edu/zssj/vol2/iss1/6

[7]Preliminary Study on the Drivers of Deforestation and Potential for REDD+ in Zambia. A consultancy report prepared for Forestry Department and FAO under the national UN-REDD+ Programme Ministry of Lands & Natural Resources. Lusaka, Zambia. 2011

[8] FAO, 2008. Integrated Land Use Assessment.

[9] Hollingsworth, L.T., D. Johnson, G. Sikaundi, S. Siame. 2015. Fire management assessment of Eastern Province, Zambia. Washington, D.C.: USDA Forest Service, International Programs

[10]UNISDR, 2018

[11]
McSweeney, C., New, M., Lizcano., G *et al.,* 2010: The UNDP Climate Change Country Profiles: improving the accessibility of observed and projected climate information for studies of climate change in developing countries. Bulletin of the American Meteorological Society, 91, 157–166.

[12]Zambia Environmental and Climate Change Policy Brief (2010)

[13] To strengthen resilience and reduce vulnerability to the adverse impacts of climate change in developing countries, and support their efforts to enhance adaptive capacity.

1b. Project Map and Coordinates

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

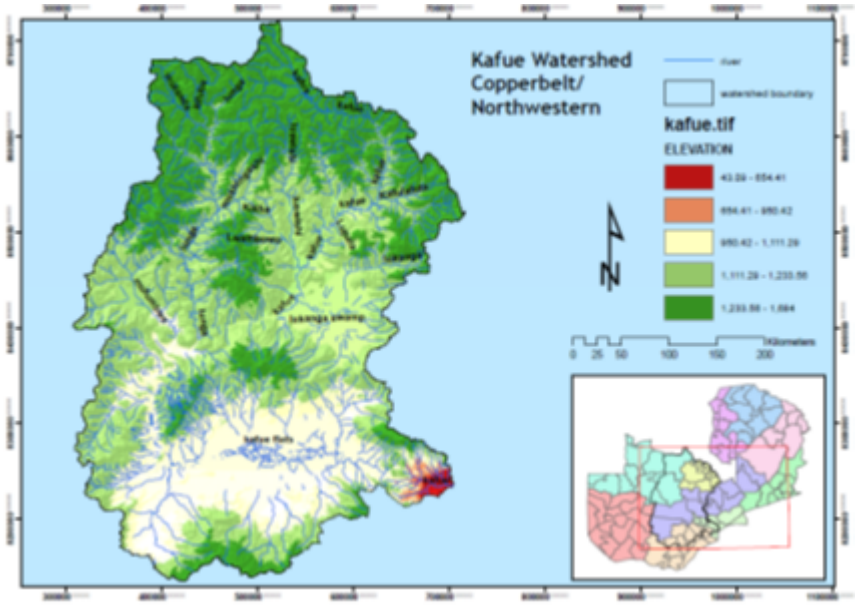

Figure 2: Showing the Kafue River basin and positions of the targeted districts.

2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above,please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

The overarching aims and outputs of this project were generated at a workshop in Zambia that was attended by representatives of national and regional government, as well as NGOs. A number of national level NGO associations have interest in this project, including Zambia Climate Change Network, the Community-Based Natural Resource Management Forum, Zambia Land Alliance. They will continue to be involved during the PPG phase and subsequent implementation, to bring good practices from other projects and initiatives and support partners. The PPG phase will involve additional stakeholder consultation in the highlighted priority regions and districts, which will include the Agriculture and Natural Resources sub-committees (under the District Development Coordinating Committees, themselves headed by District Commissioners) and the forestry officers. DDCCs already include membership of relevant NGOs (as appropriate to each district). At the community level, Ward Development Committees would likely play a role in local level implementation of activities, and the selection of appropriate communities to be involved in the project will take place during consultation in the PPG phase. There are various data sources available to select beneficiaries: dependency on forest resources, proximity to forests, vulnerability of forest resources as a result of the levels of dependency and proximity. These could be complemented by secondary data from national household surveys, levels of poverty across districts (from the economic census) and social welfare data. Given that value chains are envisaged private sector enterprise stakeholders will be involved as well: e.g. Kalahari Natural Oils and Zambia Honey Council.

It is estimated that at least 18,000 farmers will directly benefit from the project across the 11 target districts. The farmers will come from the most vulnerable and poor communities and in particular those communities most depending on NTFPs. The PPG will in detail determine in close collaboration with village and traditional chiefs, district and provincial authorities, the most vulnerable communities adjacent to forests. At least 60% of the total direct beneficiaries will be women. The PPG will furthermore provide further detailed information on the indirect beneficiaries of the project. It is expected that the farmers participating in FFS and FFPOs will play a key role in strongly influencing neighboring communities and farmers in engaging more in SFM practices and sustainable harvesting and management of NTFPs.

Table 3. Stakeholders and roles

Stakeholders	Roles
Ministry of Lands and Natural Resources (Forestry Department)	Executing agencies with presence from district, provincial and national level
Department of Climate Change and Natural Resources; Department of Environmental Protection	Partner with excuting agency in Monitoring and evaluation of programme implementation; supporting development of policies/plans and ensuring consistency with national policies
Ministry of Agricuture	Setting up farmer Field Schools and promotion of underutilised more resilient crops to climate change
CIFOR	Partner with responsibility for technical inputs to the 4th project component on the district monitoring systems
Local forest dependent communities	Main project beneficiaries. The PPG phase will have in-depth consultation with these groups defining their roles and responsibilities
NGOs and Civil society	The stakeholders will be heavily involved at the community level in particular and in technical areas where they have certain experiences and expertise.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

In Zambia, ownership and control of assets and resources (natural resources inclusive) is predominantly in the hands of men. Traditionally, the majority of women do not own nor inherit land. The control over use of income and participation in making decisions in the use of income has equally been recorded to be low, more especially among rural households.

As much as women tend to take a significant role in the production of commodities, men tend to take over at the time of marketing the produced commodities. Attempts have been made to engage women on these related aspects but generally, they do not naturally come out especially when discussions are held in public domains where men are present. Furthermore, women and youth farmers are generally the most financially excluded group especially in terms of formal services.

Given the above gender context, the project will take a gender responsive approach at all levels of the project components; namely promoting innovations and technologies in forestry value chains; and the component of enhancing diversifies livelihood strategies for climate resilience. The overall goal will be to promote gender equity and equality in access to and control of natural assets, technologies, services, decision-making processes, products and income from forest landscapes in order to enhance food security, wellbeing and resilience of rural households, especially women and girls.

The first level effort will be to fully understand the roles of the various actors in the sector and their contributions to specific products and services, and then design interventions that will be appropriate to their knowledge and skills, resources, time availability, interest and ingenuity.

Based on consultations conducted in the preparation of the PIF, some of the specific targeted gender responsive activities identified include:

· Incorporate behavior change messages into farmer training materials and advice to promote women's decision-making over key aspects of production related to crop production and management of forestry and non-forestry resources;

· Use of success stories from a number of different contexts about how shared decision-making and equitable divisions of labor between men and women improves economic security and overall income;

· Promote agricultural and forestry related activities viewed as women friendly such as production of indigenous vegetables, which are on demand by the market;

· Encourage the involvement of women in all training programs, and where necessary, conduct women specific training programs;

· Increase the household's access to time and labor saving inputs, technologies and/or services, whilst increasing production;

· Encourage investment in mechanizing activities that females are primarily involved in;

· Encourage women participation in product marketing to promote women's decision-making and accountability to on-farm proceeds and returns on labour.

A percentage of the budget will be allocated to women's empowerment and support to women's or female-led Forest and Farm Producer Organizations (FFPOs). In addition, the promotion of gender equitable financial and technical support will be ensured, including through community-based savings and lending initiatives and through the dissemination of labour-saving and gender-sensitive technologies and practices.

The design and preparation of the project during the PPG phase will be based on a solid gender analysis, building on the comprehensive country gender assessment of Zambia[1] carried out by FAO in 2018 and follow the requirements laid out in the Policy on Gender Equality along with the GEF Gender Implementation Strategy. During the full design of the project, the GEF Gender Implementation Strategy will help conduct gender analysis and set up gender marker screening systems to ensure from an early stage that the roles, needs and knowledge of women and men are clearly defined and integrated. Stakeholder dialogues will be gender-responsive. FAO's developed policy on gender equality[2] will also form a key part of the PPG phase by ensuring gender mainstreaming across all activities and discussions from the early stages of the project preparation.

[1] http://www.fao.org/3/i8461en/I8461EN.pdf

[2] FAO Policy on Gender Equality. Attaining Food Security Goals in Agriculture and Rural Development. 2013.

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; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The proposed project corresponds to priorities for private sector engagement in the new LDCF/SCCF strategy by targeting its interventions at small scale enterprises to build capacities of private sector at the local level.

The direct beneficiaries of the project are all small-scale farmers and value chain actors (60 percent of those are women), representing local private sector within the project boundary. Component 2and 3 are specifically geared towards private sector engagement. Interventions here are targeted at enhancing local private sector and foster entrepreneurship through value chain development of NTFP as a means to build climate resilience in vulnerable communities dependent on forest resources as well as to link smallholder producers to markets, introduce sustainable supply chains, and create stable revenues with agricultural commodities. It is also expected that national (and multinational) private sector enterprise stakeholders will be involved: e.g. Kalahari Natural Oils and Zambia Honey Council.

Kalahari Natural Oils will be engaged in training locals on organic harvesting and processing of forest products which they have been doing in SouthWestern Zambia since 2006. The locals will later on become suppliers of high quality raw materials to Kalahari Natural Oils. This will give locals, especially women, an alternative to subsistence farming and additional cash income.

The Zambia Honey Council will be key in training honey producers and ensuring that they have access to markets and thus earn good income to sustain their livelihoods. Being a forum of honey producers, processors and buyers, the Zambia Honey Council is well positioned to coordinate the key players in the honey value chain to ensure that the vulnerable honey producers get a fair price for their produce while being assured of a market even after this project has closed. This will help facilitate additional investments and support the private sector, to replicate and scale up in a timely manner.

It is ultimately envisaged that the FFPO enterprises will work with various private sector players in forests and agriculture value chains in increasing business opportunities, value addition and job creation for the benefit of the rural communities.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

The main anticipated risks at this stage are operational in nature, but a full risk assessment will be carried out during the PPG phase.

Table 4. Risks

Risk	Level	Mitigation measures
Insufficient ownership at district level	Low	Key components of the project take place at district level and thus depend on the active engagement of the selected districts with project processes. Representatives from the relevant provinces were present at the stakeholder meeting where the districts were selected, and districts were selected based on need, which suggests that there should be interest. This risk will be mitigated through a complete participatory process that is driven by the leadership of the relevant districts during the PPG phase.
Weak community engagement	Low	The third component of the project is designed to build resilience among forest-dependent communities and thus will require their full and active engagement. Activities outlined here have been decided upon by national and provincial representatives, based on examples of good practice and consistency with national objectives; but the target communities themselves will select the precise combination of activities in which they will engage during the PPG phase to ensure that interventions meet their needs and address local driving forces of deforestation and degradation.
Community interest may wane if tangible benefits are not immediately forthcoming	Medium	It will be necessary for alternative livelihoods, and the necessary enabling environments, to be appropriately planned and thought through such that benefits accrue with minimum delay, so as to convince communities that there are viable alternatives. This risk will be minimized as the communities themselves will have selected the interventions and will be in the driving seat of the process.
Community commitment to being involved in monitoring may wane	Medium	The establishment of the district level monitoring systems in component four will rely not only on the technical leadership of district level staff but also the active engagement and participation of communities. Ensuring their ongoing commitment will be encouraged through comprehensive training and awareness raising over the importance of sustainable resource use and the imperative of local monitoring and management.

Extreme events during the project implementation period could undo benefits of reforestation, forest rehabilitation and restoration activities and alternative climate-resilient livelihoods	Medium	The nature of the project is to ensure resilience under the projected future climate conditions, and thus all activities, whether around reforestation or restoration of biophysical forest resources, or the creation of climate-resilient livelihoods for forest-dependent populations, should be sustainable given exposure to such conditions, and indeed the occurrence of floods or droughts would be a good test of their climate resilience. However, extreme events may divert government attention (at the district, provincial and national levels) to dealing with emergency situations and thus may risk the planned implementation of the project. This risk will be mitigated by a comprehensive institutional analysis and management structure, which will be scoped during the PPG phase.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

Project implementation will be led by the Forestry Department of the Ministry of Lands and Natural Resources, in close collaboration with the Department of Environment. A steering committee of Permanent Secretaries identified by the focal ministry will provide overall oversight and alignment with other Government agencies and ongoing GEF projects. There are existing initiatives that have and are continuing to take place around supporting forest-dependent populations, and this project will build on the lessons learned and replicate them in different locations. The proposed LDCF project will in particular build upon the experiences and knowledge gained by the following projects.

A related activity in the same area as the targeted districts in this project is the Zambezi River Basin Initiative (ZRBI) – a joint programme between Angola, Botswana, Malawi, Mozambique, Namibia, Zambia and Zimbabwe Red Cross Societies (IFRC) to support people living in villages and towns along the river basin. The ZRBI has a number of aims including capacity building in order to break people out of the cycle of disaster, displacement and recovery. It recognizes that there are many opportunities for economic development including tourism and the promotion of arts and crafts – all initiatives that link well to the proposed LDCF project's component 2 and 3.

USAID initiated the REDD+ program in the Eastern Province of Zambia back in 2014. The project focuses on investment in the Community Based Forest Management program. The project seeks to validate roughly 500 000ha under REDD using a Verified Carbon Standard methodology and seeks to sell the REDD credits produced through the voluntary carbon market. The project is operational from 2014 – 2019. This USAID REDD+ project targets community forest. The experience and methodologies developed will be used for capacity building of the community forestry groups within the LDCF project for these groups to learn and eventually benefit from the voluntary carbon market.

USAID has awarded a cooperative agreement to BioCarbon Partners, Ltd (BCP) to implement the Community Forests Program (CFP) in Zambia. The USAID/CFP is the flagship piece of USAID/Zambia's Global Climate Change (GCC) project under the Presidential GCC Initiative, and is designed to exemplify and support the Government of Zambia's (GRZ) Reducing Emission from Deforestation and Degradation (REDD+) strategy by establishing the largest REDD+ program to-date in Zambia. USAID-funded CFP activities will be based primarily in Eastern and/or Lusaka and Muchinga Provinces, and will focus on establishing project areas within the Zambezi to Luangwa Valley ecosystem. The program will be jointly implemented by BCP, Forestry Department (FD), and Department of National Parks and Wildlife, along with a variety of other key implementing partners – including local institutions and organizations. The CFP aims to reduce emissions from deforestation and forest degradation, reduce poverty, and conserve biodiversity values in this ecosystem of global biodiversity value. This project links very closely with all the components of the proposed LDCF project and in particular of relevance is the link between poverty reduction, biodiversity and improved forest management.

UNDP implemented a LDCF project (GEF ID 3689) from 2009-2014 in AIZ I and II focusing on climate resilient water management and agricultural practices. The lessons learned will form a key part of technical assistance to the forest and farm producer organizations (FFPOs) when developing the NTFPs and overall landscape management. The project's terminal evaluation report suggests many relevant entry levels such as the development of technical manuals for district staff, registration of cooperatives, associations and business enterprises, business plan development, community trusts to name but a few. These findings will be taken into consideration in the full project design.

Other projects and organization will be approached during the PPG to assure that all relevant initiatives are discussed and approached in order to seek the best implementation of the proposed LDCF project.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

This project is country-driven and responds to key government priorities for climate change adaptation in Zambia. Broadly speaking, this project contributes to the aim of the Zambian NAPA which is to strengthen the resilience and adaptive capacities of vulnerable people (including forest-dependent communities). Specifically, the components of this project address three prioritized intervention areas in the Zambian NAPA - the promotion of alternative sources of livelihoods (2nd priority); the management of critical habitats (4th priority) and the promotion of natural regeneration of community forests (5th priority). Furthermore, NAPA-identified adaptations (fire management; restoration; community forest management and rural energy access to reduce pressure on forests) all feature prominently within this project. The Zambian NAPA identifies agro-ecological regions I and II as being particularly drought-prone and therefore a priority area for climate-resiliency projects.

The project is also in alignment with the priority areas outlined in Zambia's NDC. Emphasizing adaptation and key vulnerable sectors, the NDC highlights its priority programmes where this proposed project is expected to contribute directly to the actions and activities of Program 1: Adaptation of strategic productive systems. Programme 1 aims to ensure guaranteed food security through diversification and promotion of Climate Smart Agricultural (CSA) practices for crop, livestock and fisheries production including conservation of germplasm for land races and their wild relatives. Additionally, Programme 3 of Zambia's adaptation priorities in the NDC will ensure 'Enhanced capacity building, research, technology transfer and finance for adaptation´ in which this project is also expected to be complementary in achieving these objectives.

The proposed project will also help to address the two national priority sectors for adaptation defined in Zambia's TNA with regards to the technology prioritization for Agriculture and Food Security. This project will complement on the adaptation technology options selected for the agriculture sector such as Sustainable Farming Systems along with Capacity Building and Stakeholder Organization.

The Government of the Republic of Zambia is also a signatory to a number of international conventions and protocols on the protection of the environment and biodiversity conservation. These include Agenda 21, Convention on Biological Diversity, United Nations Convention to Combat Desertification, Forest Principles, the Convention on Climate Change and the Convention on International Trade in Endangered species of Flora and Fauna. This project is in keeping with all these policy objectives.

The project relates directly Sustainable Development Goals 13 (Climate Action) and 15 (Life on Land). The project activities are directly linked to the following targets:

13.1 Strengthening of resilience and adaptive capacity to climate related hazards and natural disasters in all countries;
15.2 By 2020 promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.
Indirectly the project relates as well to SDG 1 on ending poverty in all its forms everywhere and SDG 5 on Achieve gender equality and empower all women and girls.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

As mentioned, the proposed LDCF project is fully aligned to the objectives of the GEF-7 Sustainable Forest Management (SFM) Dryland Sustainable Landscape Impact Programme (DSL IP) and the project activities would also be complementary to the potential participation of Zambia in the DSL IP given that the LDCF interventions are geared towards building climate resilience into production landscape whereas a conservation focus under the DSL would complete an integrated landscape intervention. As such, participation in regional and global knowledge management events (organized by the DSL IP) and on-the ground south-south exchanges with the DSL IP child projects are anticipated.

During PPG, a specific knowledge management plan will be developed by ensuring the participation from all stakeholder groups to ensure that the strategy can share the knowledge from the project in the best possible user friendly way reaching out to a wide audience.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Mr. Godwin Fishani GONDWE	Director/GEF Operational Focal Point Environment Management Department	Ministry of Water Development, Sanitation and Environmental Protection	12/26/2018

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

Annex A

Annex 1. Description of target districts with typical farming systems and environmental challenges

Province	District	R	Livelihoods (farming systems)	Present Environmental challenges
Eastern	Petauke	2	Finger millet, sorghum, maize, few animals and livestock production because presence of tsetse flies and Trypanosomiasis, with Tobacco as main cash crop	Illegal harvesting of the high value Mukula trees (Pterocarpuschrysothrix) Charcoal is commonly produced in the district.
Eastern	Nyimba	2	Finger millet, sorghum, maize, few animals and livestock production because presence of tsetse flies and trypanosomiasis, Cotton as cash crop (contract cotton)	
North-Western	Mushindamo		Sorghum, millet, maize, sweet potatoes, beans, groundnuts, vegetables and Pineapples Important livelihood activities include selling of millet beer, temporary jobs, charcoal sales, cotton as main cash crop contract cotton	
North-Western	Mwinilunga		Limited access to markets, poor infrastructure. Maize and sorghum, tsetse flies limiting cattle rearing,	
North-Western	Kasempa		Maize, sorghum Off farm labour opportunities , wild foods (fruits and roots)	
Southern	Kalomo	2	Sorghum, millet, maize, sweet potatoes, beans, groundnuts, vegetables and fish Important livelihood activities include selling of millet beer, temporary jobs, charcoal sales,	High risks of frosts in June-August
Southern	Choma	2	Sorghum, millet and maize are the main stable food crops, fish and vegetables in diets, cash crops cotton and tobacco, temporary jobs, charcoal	Droughts
Southern	Kazungulu	1	At least 70% of farmers are subsistent farmers. Maize, sorghum and bulrush millet, beef, milk and fish raising. Harvesting of NTFPs (mushrooms, mopane worms, nuts, bee keeping, baobab fruits, harvesting palm fronds	Flooding
Southern	(Gwembe)	1	Maize and sorghum and generally as in Kazungulu, but higher reliance on game meat. Other activities include fishing, collection of wild foods, livestock (goats, cattle, chickens, sheep, pigs). Main cash crop is cotton, with existing cotton outgrower schemes	Weather extremes include both droughts and floods
Western	Sesheke	1	Bulrush millet, sorghum, maize and cassava. Few cattle for milk and manure. Enlarged areas with natural forests. Timber exploitation taking place.	Highly degraded Baikea woodlands, mainly driven by high timber exploitation. Climate is very harsh in this part, frosts and high temperatures.
Western	(Sioma)	2	Maize, cassava and cattle rearing with incomes mainly derived from small scale crop and livestock sales, with some timber sales. Timber exploitation takes place but mainly for rich households and provides labour opportunities for medium and poor households. For poorest households wild foods contribute to the diets during difficult times	Flood prone in the wet season, destruction of crops, crops failure and inaccessibility