



Integrated Adaptation Program to enhance resilience of communities and ecosystems in the dry Miombo Woodlands of Tanzania Mainland and Dryland of Zanzibar

Part I: Project Information

GEF ID

10364

Project Type

FSP

Type of Trust Fund

LDCF

CBIT/NGI

CBIT

NGI

Project Title

Integrated Adaptation Program to enhance resilience of communities and ecosystems in the dry Miombo Woodlands of Tanzania Mainland and Dryland of Zanzibar

Countries

Tanzania

Agency(ies)

FAO

Other Executing Partner(s)

Vice President's Office (VPO) and Tanzania Forest Service Agency (TFS) under the Ministry of Natural Resource and Tourism as lead executing entities. Other executing partners are: President Office Regional Administration and Local Government (PO-RALG), Ministry of Agriculture; Ministry of Livestock and Fisheries; Ministry of Agriculture and Natural Resource, Livestock and Fisheries- Zanzibar; and Tanzania Meteorological Agency (TMA)

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Adaptation Tech Transfer, Least Developed Countries, Ecosystem-based Adaptation, Community-based adaptation, Climate information, Innovation, Mainstreaming adaptation, Small Island Developing States, Complementarity, Climate resilience, Livelihoods, Disaster risk management, Private sector, National Adaptation Programme of Action, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Transform policy and regulatory environments, Demonstrate innovative approaches, Stakeholders, Beneficiaries, Communications, Behavior change, Education, Awareness Raising, Strategic Communications, Private Sector, Individuals/Entrepreneurs, SMEs, Type of Engagement, Partnership, Information Dissemination, Participation, Civil Society, Academia, Community Based Organization, Non-Governmental Organization, Local Communities, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Women groups, Sex-disaggregated indicators, Gender results areas, Capacity Development, Access to benefits and services, Access and control over natural resources, Knowledge Generation and Exchange, Participation and leadership, Capacity, Knowledge and Research, Knowledge Generation, Learning, Targeted Research, Knowledge Exchange, Enabling Activities

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

60 In Months

Agency Fee(\$)

419,540

Submission Date

10/9/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1	LDCF	3,500,000	35,629,900
CCA-2	LDCF	916,210	5,350,000
	Total Project Cost (\$)	4,416,210	40,979,900

B. Indicative Project description summary

Project Objective

To reduce vulnerability and increase climate change resilience of communities and priority sectors through introducing, testing and adapting selected appropriate technologies and innovative practices.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Improving the enabling environment to promote the uptake of climate change adaptation technologies in priority sectors in Tanzania	Technical Assistance	<p>1.1. Strengthened policy and institutional frameworks for promoting the transfer of adaptation technologies and innovations for climate resilient value chains</p> <p><u>Indicator and Targets</u></p> <p><i>Cross-sectoral decision support system for climate resilient value chains (Non-Timber Forest Products (NTFPs), fodder, Neglected Underutilized Species (NUS), woodfuel and horticulture) of the targeted Miombo landscapes and dryland of Zanzibar strengthened</i></p> <p><i>CCA mainstreamed in 4 integrated landscape management plans</i></p> <p><i>CCA mainstreamed in 11 Mid-Term Expenditure Frameworks</i></p>	<p>1.1.1. National and subnational institutions have improved capacity for comprehensive planning and implementation</p> <p>1.1.2. Cross-sectoral/ cross-ministerial coordination mechanism at national and subnational level to mainstream climate change adaptation in integrated landscape planning efforts.</p> <p>1.1.3. Climate Change vulnerability assessments conducted as a means for prioritizing and designing cost-effective adaptation solutions in the targeted regions and integrated into cross-sectoral decision support systems for Miombo woodlands and Zanzibar.</p> <p>1.1.4. Based on 1.1.3, evidence based adaptation practices, appropriate technologies, and innovative approaches identified and prioritized to enhance resilience across prioritized value chains (horticulture, NUS,</p>	LDC F	400,000	3,650,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
2. Supporting resilient production systems for resilient livelihoods	Investment	<p>2.1 Increased resilience of production systems and landscapes</p> <p><u>Indicator and Targets</u></p> <p><i>27,000 hectares of land under climate-resilient management</i></p> <p><i>(Area coverage to be determined during the PPG)</i></p>	<p>2.1.1. Adaptation learning forums/platforms supported, including within the Forest and Farm Facility (FFF) and Farmer Field Schools (FFS) supported under the DSL IP child project</p> <p>2.1.2. Innovative water harvesting and irrigation systems (e.g. water use efficient technologies) for priority sectors introduced, tested and promoted in FFS, FFF and producers' plots.</p> <p>2.1.3. Introduce and support ICT in accessing and use of agro-meteorological information and products to smallholder producers.</p> <p>2.1.4. Improve and support ICT access and availability of mobile services to smallholder producers.</p> <p>2.1.5. Support and capacitate priority sector training and research institutions (e.g. Beekeeping Institution and Agriculture Research Institution-</p>	LDC F	1,500,000	16,000,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
3. Scaling up adaptation technologies and practices in NTFPs and horticulture value chains through markets and investments	Investment	3.1. Climate resilient post-harvest technologies upscaled through local supply infrastructure and innovations in value addition	3.1.1. Climate-resilient storage facilities (including cooling and warehouses) are introduced to improve preservation and quality, and reduce post-harvest losses.	LDC F	1,850,000	15,629,900
		<u>Indicator and Target</u> <i>At least 10 different technologies introduced and out scaled</i>	3.1.2. Processing technologies for selected value chains introduced and producer organizations/SMEs trained in post-harvest handling.			
		<i>Post-harvest losses reduced to below 15 percent</i>	3.1.3. Appropriate packaging technologies are introduced and collection centres are established / improved.			
		3.2. Market systems and financial and incentive mechanisms developed and strengthened for diversification of activities to reduce vulnerability	3.2.1. Actors trained on use of Information and Communication Technologies (ICT) in accessing NTFPs, fodder, NUS and horticulture markets (domestic and export)			
		<u>Indicator and Target</u> <i>500 producers using ICT to access domestic and Export market</i>	3.2.2. Priority sector cooperatives (engaging youth and women) are strengthened through technical support and capacity building			
		<i>7 market centres established</i>	3.2.3. SMEs and producer organization groups supported in			

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
4. M&E and knowledge transfer	Technical Assistance	4. Effectiveness of selected innovative approaches and technologies assessed and knowledge on climate change adaptation benefits widely disseminated.	4.1.1. Adaptation benefits of selected innovative approaches and technologies assessed and shared at various levels (Component 1)	LDC F	455,914	1,700,000
			4.1.2. Practical and applied training and communication material developed and disseminated to different target audiences (policy makers, Forest and agricultural advisory services at local and National level) using print, radio, tv programs and social media, community video shows, exhibition, etc.			
			4.1.3. Digital Green Approach used for wider dissemination of innovative approaches.			
			4.1.4. SADC's Great Green Wall Initiative (GGWI) and SRAP structure as well as SAGCOT's sectorial associations/platforms used to present innovative approaches and technologies to other countries (building upon the regional DSL IP structure).			

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
				Sub Total (\$)	4,205,914	36,979,900
Project Management Cost (PMC)						
				LDCF	210,296	4,000,000
				Sub Total(\$)	210,296	4,000,000
				Total Project Cost(\$)	4,416,210	40,979,900

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(\$)
GEF Agency	FAO	Grant	Investment mobilized	1,000,000
Government	Tanzania Forest Service Agency (TFS)	In-kind	Recurrent expenditures	6,700,000
Government	Government of Tanzania	Public Investment	Investment mobilized	9,000,000
Government	Ministry of Agriculture	In-kind	Recurrent expenditures	5,000,000
Government	Ministry of Livestock and Fisheries	In-kind	Recurrent expenditures	4,700,000
Government	Ministry of Agriculture Natural Resources, Livestock and Fisheries, Zanzibar	In-kind	Recurrent expenditures	3,000,000
Private Sector	National Microfinance Bank (NMB) Foundation	Grant	Investment mobilized	500,000
Donor Agency	European Union	Grant	Investment mobilized	11,079,900
			Total Project Cost(\$)	40,979,900

Describe how any "Investment Mobilized" was identified

The investment mobilized are considered, as per GEF definition, not recurrent expenditures. The investment mobilized from the Government, NMB, EU and FAO will be new capital investments. The co-finance listed as investment mobilized has been identified through various consultations and is being considered from the following sources: • Government of Tanzania: Agricultural Sector Development Programme Phase II (ASDP II) & Water Sector Development Program (WSDP) • NMB Foundation: Empowering young entrepreneurs through commercial agriculture in Tanzania • EU: Beekeeping value chain support by European Union (EU) • FAO: The FAO investment mobilized is expected to grant received from be its regional and HQ resources for targeted new technical cooperation programme related to this project and new donor funding.

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	Tanzania	Climate Change	NA	4,416,210	419,540	4,835,750
Total GEF Resources(\$)					4,416,210	419,540	4,835,750

E. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	LDCF	Tanzania	Climate Change	NA	150,000	14,250	164,250
Total Project Costs(\$)					150,000	14,250	164,250

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

See attachment with CCA Core Indicators and Metadata

Part II. Project Justification

1a. Project Description

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Country overview

The United Republic of Tanzania is located on the eastern coast of Africa within the Africa Great Lakes region, spanning a total of 947,303 Km² (881,289Km² mainland and 2460Km² Zanzibar) and 59, 050Km² of inland water bodies[1]¹.

Tanzania's overall population is estimated at 53 million people (2016) with about 70 per cent of the people residing in rural areas, divided between the Mainland and Zanzibar islands. The population of young people has almost doubled between 1990 and 2010, and youth currently accounts for 30 per cent of the total population. The total population is projected to reach 138 million by 2050[2]². Tanzania is a Least Developed Country (LDC) and among the poorest countries in the world. Tanzania, however, has sustained a relatively high economic growth over the last decade, averaging 6–7% a year. While the poverty rate in the country has declined, the absolute number of poor citizens has not because of a high population growth rate. Poverty remains highest in rural areas and over 80 percent of the country's poor and extremely poor live in rural areas and characterized by hunger and malnutrition. The incidence of rural poverty is highest among female-headed households in arid and semi-arid regions that depend exclusively on livestock and food-crop production[3]³.

Economic growth in Tanzania is highly dependent on climate sensitive sectors such as agriculture, water and tourism. In particular, the country is heavily dependent on a robust and healthy environment to support income generating activities associated with food and agriculture systems. Agriculture, livestock, forestry and fisheries provide the backbone

of livelihoods for the majority of Tanzanians - though the sectors remain underdeveloped and highly vulnerable to climatic factors. The agriculture sectors contribute to about 23% of Growth Domestic Product (GDP) and more than 30% of export earnings. They provide 65% of inputs to the industrial sector and employs about 66.9% of the population (URT, 2016). In Zanzibar, the agriculture sectors contribute to about 50% of GDP, export earning value of 80% and employ nearly 70% of the archipelago's population[4]⁴.

Project targeted areas

The project will target two distinct areas: i) the southern and western parts of Tanzania, between Lakes Victoria, Tanganyika, and Nyasa consisting of flat land that has been categorized as the Central Zambezi Miombo woodlands ecoregion and covering 144,146 km² with approximately 3,827,912.07 ha of dry Miombo woodlands; and ii) Zanzibar.

Miombo region: The Central Zambezi Miombo woodlands cover 93% of Tanzania's forested land. The dry Miombo woodlands provide the backbone of rural livelihoods. The woodlands provide goods, services and income to the rural communities, particularly during drought and crops failure periods. About 23% of the households use dry Miombo forest as source for food and to meet their needs during critical food shortage months. It fulfil various ecosystem services to ensure the resilience of surrounding communities. The drylands provide a vast number of Non Timber Forest Products (NTFPs) such as edible insects, fruits, mushrooms, vegetables, honey, bulbs, fodder, medicine, and wild meat. They do not only provide resources in harsh times of the year but also contributes to the diversification of livelihood strategies and options. The dry Miombo woodlands also play a critical role as a source of energy in the form of firewood and charcoal. In addition, the biome is a crucial source of essential subsistence goods, such as poles and construction products, timber, materials for tool handles and household utensils, leaf litter, grazing and browsing, supporting and regulating services. The woodlands contain around 8,500 higher plants of which nearly half are endemic to the woodlands alone, they maintain carbon stocks (and thereby regulating climate), control soil erosion, provide shade, maintain hydrological cycles, soil fertility and support farming systems.

The targeted zone comprises of Protected Area (PAs)[5]⁵, surrounded mainly by cropland which has increased by 40% in the past 20 years (1995 -2015). 65% of the total population in the area (3,738,164 persons) live below the poverty line and more than 85% depend on agriculture (crop and cattle). Agriculture is characterized by unsustainable land-use practices shifting cultivation and low productivity. Combined with population growth, these farming practices increase pressure on the remaining dry forest formation outside the PAs and its ecological, as well as socio-economic services.

Livestock play an important role in small-scale farming systems throughout the Miombo region. They provide traction to plow fields, manure to maintain crop productivity, and a source of protein and nutritious food products for the communities. Livestock graze in the woodlands, feeding on grass and other herbaceous plants. During the wet season these lands provide adequate forage to maintain productive animals. However, in the dry season and during droughts the quantity and quality of forage greatly decreases and is generally low in nutritional value. Livestock sustained on such diets often lose weight and productivity, which is becoming an increasing issue as the severity of climate-induced droughts continues to rise. Livestock keepers are therefore facing increasing difficulties in providing their animals with quality feeds to augment dry season forages, and the establishment of fodder banks remains insufficient. Fodder banks, which are plantings of high-quality fodder species to maintain healthy productive animals, provide an untapped opportunity to bridge the forage scarcity of annual dry seasons. Increasing recurrence of losses of forage resources linked to climate hazards are also adding to the precarious situation of pastoralist communities in the dry Miombo woodlands. Due to inadequate storage facilities, the harvested fodder is often damaged from untimely rainfall or pest invasions, resulting in both decreased fodder availability and loss of income from fodder that could have otherwise been sold.

Zanzibar: Agriculture is one of the mainstay of Zanzibar's economy and plays a key role in sustaining livelihoods on the islands. The selected project sites in Unguja and Pemba are dominated by small-scale subsistence farming with an undeveloped potential for horticulture cash crops such as spices, fruits and vegetables. Similar to the Miombo region, the selected sites also provide a range of NTFPs that contribute to local livelihoods. The areas, however, are characterized by low productivity, arising from a combination of factors such as insufficient access to inputs (quality and variety of seeds, fertilizers, etc.), lack of appropriate technologies, insufficient infrastructure and energy access, limited finance for inputs; inadequate provision of agricultural support, etc. Post-harvest losses in perishables (NTFP and horticulture products) remain high due to poor handling, poor storage facilities and inadequate processing technology, resulting in reduced income and less availability of nutritious food. Horticultural production is primarily rainfed due to insufficient irrigation systems and poor water management. In addition to these challenges, climate hazards such as drought, erratic rainfall and saltwater intrusion into agricultural lands, are further constraining the livelihoods of smallholder farmers in the targeted areas.

Zanzibar is not food self-sufficient, and fruits and vegetables continue to be imported from mainland or elsewhere, with the hotel industry relying exclusively on horticulture imports due to a widespread lack of certification. A growing niche demand for organic horticulture products by the hospitality sector also remain underexploited in the islands. Currently, clove (together with seaweed farming) dominate in export value and is a major source of foreign export value. However, clove production is vulnerable to storms and other climate hazards, and diversification in the horticulture subsector therefore represent a key, but untapped, opportunity to build resilience into the economy.

Climate trends and impacts

Tanzania's climate is characterized as being highly variable and climate trends are already indicating that temperatures are rising and rainfall is becoming more erratic. Recent models show that average annual temperatures is projected to rise by 1°C by 2050, and changes in rainfall patterns could cause dramatic shifts in agroecological zones, increase uncertainty in the onset of the rainy season, and increase the severity of droughts and floods. Other issues such as the emergence of pests and diseases moving into new geographic ranges are already suspected as indirect impacts of changing weather patterns.

The effects of climate change are already visible in the Dry Miombo woodlands where woodland resources provide the backbone of rural livelihoods. Over the last 30 years, the temperature has been increasing (Figure 1). Rainfall has indicated a slight decrease (Figure 2), where potential evaporation has significantly decreased over the period due to high rate of forest degradation. In recently years, the targeted regions have been experiencing an increase in the frequency occurrence of climate extreme events and intensity of climate-related hazards (drought, heavy precipitation associated with floods). Late onset, early cessation, prolonged dry spells, and seasonal shifting of rainfalls have become more common in the dry Miombo woodlands^[6] of Tanzania and have exerted pressure on biodiversity and ecosystem at large. Frequent droughts occurrence in the dry Miombo woodlands is linked to forest fire leave the land bare, making it susceptible to agents of soil erosion such as wind and water.

Small-scale farmers and producers are particularly vulnerable due to their dependence on rain fed production. In addition to the effects of prolonged dry spells or droughts on crops and livestock, periods of increased rainfall (with associated increase in pests and diseases) are also negatively affecting agricultural output. High rainfall intensity also influences soil degradation in the targeted areas.

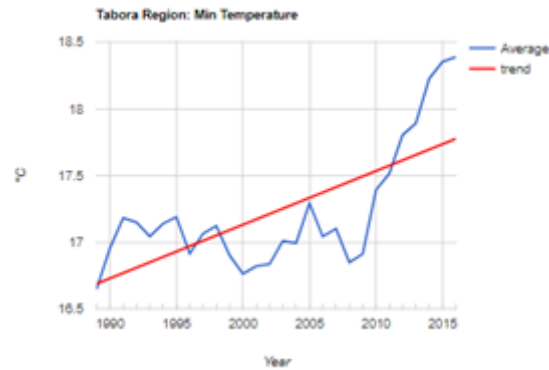


Figure 1 indicating increase of T_{min} of Tabora region

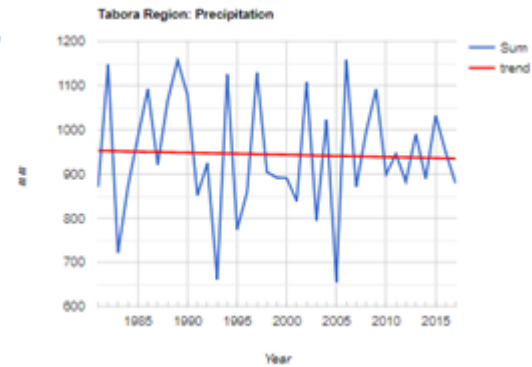


Figure2 indicating precipitation trend for Tabora region

According to the second national communication to UNFCCC, projection indicates an increase in temperature more in the south-west of Tanzania (including in the dry Miombo woodland- Taboara and Rukwa regions) by 3.40C in the medium scale (2050) and longer time scale (2100). The projection further indicates increase in rainfall variability in near future (2050). The increase will intensify impacts on crop production and areas for livestock grazing by affecting water and pasture availability, with significant implications for commercial investment, small-scale farmers, and food security.

Zanzibar, like other Small Island Development States (SIDS), is specifically vulnerable to climate impacts, which are already visible in terms of sea level rise, salt water intrusion, reduced water availability, and increases in the frequency and intensity of extreme events. Increased climate variability is a major threat to poor communities, especially women, who have limited assets and access to resources. Sea level is expected to rise, with increases projected of 0.2 and 1.0 meters over the next century that would increase shoreline (coastal) erosion, saltwater intrusion in agricultural areas and increased salinity in aquifers and water supplies for agriculture sector, including horticulture.

Remaining barriers:

Barrier 1 - Low capacities to adopt and sustain climate resilient technologies and practices at community level. Local traditional adaptation mechanisms and strategies are becoming inadequate in the face of increasing climate variability and extreme events. Small-holder farmers and livestock keepers do not have enough access to the knowledge,

tools and networks required to sustainably adopt climate resilient practices and technologies. Although small-holders are highly reliant upon agricultural and forestry extension services and systems, current support services are not organized or capacitated to assist producers to adequately adapt to climate change. Furthermore, local communities in the targeted areas are forced to overuse the landscape, to encroach into forests and rangelands, and to migrate in an attempt to derive their basic livelihoods. High dependence on biomass energy (mainly firewood and charcoal) due to lack of access to alternative energy carriers also add pressure to the landscape while upholding widespread energy insecurity in the targeted communities.

Barrier 2 - Insufficient access to post-harvest technology and coordination among farmers' organizations, private sectors such as input suppliers, traders and processors.

Smallholders and women in particular, have limited access to post-harvest technologies, insurance, information, extension services and inputs, whereas physical infrastructure (such as roads) and market linkages remain fragmented. In addition, insufficient access to reliable energy infrastructure for value-adding activities such as processing and cooling, presents a significant barrier to both post-harvest loss reduction and value chain development in the targeted areas. With limited access to post-harvest technologies, smallholders often struggle to preserve their harvest until optimal market prices and profits are met. Furthermore, without access to adequate storage facilities, increased impacts from climate change (changes in precipitation, humidity patterns and temperature) can lead to increases in mycotoxin contamination as well as outbreaks of pests and diseases and also accelerate the overall spoilage process in perishable products, particularly for horticulture and NTFPs. As a result, value-addition remain underdeveloped while post-harvest losses in some case reach up to a staggering 40 %.

Barrier 3 - Insufficient access to finance and an unfavorable investment climate. Smallholder farmers (women in particular) but also SMEs in the targeted areas face significant barriers in accessing capital and other forms of finance as they often lack sufficient collateral, financial capacity and tend to be dispersed and disenfranchised. Bank lending is typically low and with high interest rates due to perceptions of the agriculture, forestry and livestock sectors as low profit generators that involve high risks and transaction costs. Moreover, these institutions are often reluctant to invest in smallholder producers or provide insurance given their high dependence on unpredictable weather patterns and market price fluctuations. Smallholders in the targeted regions are not well linked to markets or financial institutions, such as micro-credit or micro-insurance, making it very challenging for them to financially sustain their production over time. Private sector investments in the targeted sectors therefore remain low, including for value-adding activities despite their potential for enhancing rural economies by transforming subsistence production into commercialization.

Barrier 4 - Inadequate information to inform and guide decision making on climate change adaptation. Government agencies, private sector and farmers need dependable information to determine what climate adaptation practices and technologies to adopt. The targeted areas do not have the technical and/or financial capacity to establish a cost-effective knowledge management system. Only basic production data such as cropping regimes and harvests is monitored. Information management is currently not well

integrated into decision making for farming activities in the project area. Information is not collated and systematically transferred to private sector, small-holder farmers, and other end-user to build awareness, inform farm-level decision-making, and provide an early warning of climate shocks.

Barrier 5 - Inadequate capacity to mainstream climate change adaptation measures into sectoral planning and implementation at various level. Institutions and local communities in the targeted areas need to have integrated adaptation practices and a planning measures to address climate change adaptation challenges. Local governments requires capacity and support in the design, adoption and implementation of policies to effectively support local farmers, SMEs and ecosystems to adopt climate resilient practices and technologies and have very limited technical and financial capacity to provide the training and assistance required. The result is that national government climate change related policies, planning, and investments do not adequately addressed on-the-ground adoption of climate resilient practices and technologies.

2) the baseline scenario and any associated baseline projects

In the baseline, a range of policy, legal and technical measures, and investments, are being undertaken to address the negative impact of climate change.

2.1 The policy and legal framework

The Government of Tanzania has put in place a comprehensive policy framework and ambitious roadmap to promote economic development while undertaking various efforts towards addressing climate change in accordance with the national context. The goals for Tanzania's development trajectory are framed in the country's **Development Vision 2025**. The cross-sectoral **Second Five-Year Development Plan (FYDPII 2016/17-2020/21)** aims to enhance the pace of progress towards the Development Vision 2025 and underscores the importance of agriculture and natural resources management for achieving sustainable economic development. It stresses the need for research programs to improve and develop new technologies, quality seed and agronomic practices in response to climate change (e.g irrigation technique, livestock management production, early warning systems).

Tanzania's **Agricultural Sector Development Strategy II (ASDS-2) (2015)** sets a new direction for the development of the sector and integrates the Comprehensive Africa Agriculture Development Programme (CAADP) objectives. It stresses the need to continue the pursuit of a sector-wide approach to plan, coordinate and harmonize the resources

(public and private) required to accelerate implementation of existing initiatives and to incorporate new initiatives which address national, regional and sectoral development priorities.

In line with the ASDS-2, **the Agriculture and Food Security Investment Plan (TAFSIP)** is Tanzania's version to operationalize the CAADP12 framework formulated to assist achievement of TDV 2025. It is a 10-year road map for agricultural and rural development that identifies priority areas for public and private investments in the sector to promote agricultural growth, rural development, and food security and nutrition. It is a framework for the prioritization, planning, coordination, accountability, harmonization and alignment of investments that will drive Tanzania's agricultural development over the next decade. To achieve the CAADP objectives, the investment plan is expressed in terms of seven thematic programme areas: (i) Irrigation Development, Sustainable Water Resources and Land Use Management; (ii) Agricultural productivity and Rural Commercialization; (iii) Rural Infrastructure, Market Access and Trade; (iv) Private Sector Development; (v) Food Security and Nutrition; (vi) Disaster Management, Climate Change Adaptation and Mitigation; and (vii) Policy Reform and Institutional Support.

Tanzania has launched the **National Climate Change Strategy (2012)** and the **Zanzibar Climate Change Strategy (2014)**, which set out the strategic intervention and priorities for climate action. The strategies aim to, among others, enhance adaptive capacity to climate change thereby ensuring long term resilience; resilience of ecosystems to climate change; and enhanced participation in climate change mitigation activities to contribute to international efforts while ensuring sustainable development.

As an implementing vehicle at the sectoral level, The Ministry of Agriculture Food Security and Cooperatives (MAFC) has developed its **Agriculture Climate Resilience Plan (ACRP)** guide the strategic interventions for adaptation in the agriculture sector. The ACRP presents a wide range of adaptation options including improving agricultural land and water management; accelerating uptake of Climate Smart Agriculture; reducing impacts of climate-related shocks through risk management; and strengthening knowledge and systems to target climate action. The ACRP aims to integrate resilience in agricultural policy decisions, influence planning processes, and implement investments on the ground.

The Tanzania's Nationally Determined Contributions (NDCs), 2018, which is guided by both national and international contexts and expected to be implemented by 2030. The NDCs is in line with the Tanzania Development Vision (2025), Tanzania Five Year Development Plan (2011/12-2015/16), and anchored into the National Climate Change Strategy (2012).

The Government of Tanzania developed in 2017 **National Climate Smart Agriculture Guidelines (2017)**, with technical support from FAO. It builds upon the ASDP II directives and calls for resilience in the agricultural sector using CSA and ecosystem-based approaches. The proposed project will disseminate and promote CCA technologies and approaches that have been identified in the guideline in the targeted areas. Through LDCF investment the proposed project will be linked with Tanzania Climate Smart Agriculture Alliance (TCSAA).

In addition, the proposed project will be aligned with various other policies, legislations, strategies, plans and programmes in the course of addressing climate change. Some of these are: the National Communications (2003 and 2015); the National Adaptation Programme of Action (2007); the Zanzibar Environmental Policy (2014); the National Forestry Policy 2 (1998); the National Environmental Policy (1997); the Zanzibar Environmental Policy (2013); the National Environmental Action Plan (2012 – 2017); the National REDD+ Strategy and Action Plan (2013) and the National Environment Management Act (2004).

2.2 Relevant on-going programmes and investments

Government programmes

Several projects and programmes implemented by the (national/local) government and private sector compose the baseline for this project, to the extent that they are well aligned with the project’s objective and can provide a platform for collaboration, technical integration and co-financing. The most relevant are as follows:

Baseline name	Timeframe	Budget	Description	Co-financing amount and additional value
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Baseline name	Timeframe	Budget	Description	Co-financing amount and additional value
Agricultural Sector Development Programme Phase (ASDP II)	2015/6 - 2024/5	USD 5.892 billion including USD 40M in the targeted area	Development of priority commodities, land use planning, sustainable watershed management, climate-smart agriculture and water management	USD 8M The proposed project will assist in the development of sustainable value chains that support ASDP II interventions thereby complementing and sustaining ASDP II outputs. The LDCF investment will use ASDP II investment in the targeted areas to strengthen capacity of small scale producers, traders, and processing farmers organization; improving market infrastructure for accessing domestic and export market; develop access market for all priority commodities proposed; promote Climate Smart Agriculture Technologies; and Practices integrate water use management for crops/irrigation/livestock
Water Sector Development Program (WSDP II)	2006- 2025	USD 2.38M including USD 1M in the targeted area	Establish water facilities	The proposed project will benefit from the prioritized water investments in the targeted areas such as improvement of rural water supply and water resources management initiative. LDCF resources will leverage on the low cost technologies that will be introduced by the WSDP II, which emphasizes on use of locally available materials and technologies at farm plots and household levels.
NMB Foundation	2021- 2025	USD 500,000	Building financial management capacities among producers and their organisations	The proposed LDCF will build on a past cooperation between FAO and NMB Foundation (2014-2016) in Kiroka, Morogoro aimed at strengthening smallholder households' access to finance through collective production, storage and marketing strategies. With co-finance from NMB Foundation (US\$ 500,000, the proposed project will focus on building financial management capacity among producers and their organizations, creating sustainable linkages with local financial service providers and agricultural value chain agents, and improving agricultural practices to enhance productivity. Linkages between farmer organizations (FOs) and financial service providers will be established to provide room for development of a long-term market strategy.

Beekeeping value chain support by European Union (EU)	2020- 2025	USD 11,079,9000	Development of the beekeeping value chain, including in Singida, Kigoma, and Shinyanga regions	While the EU support will focus in developing the beekeeping value chain, the proposed project will conduct a value chain analysis and will support the development of specific value chains in the targeted areas taking into account the results of the climate change vulnerability assessments and using market-end approach.
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In addition to the above baseline initiatives, the proposed project will seek additional co-financing during the PPG and then the project implementation. These include taxes and charges from various investments associated to climate change adaptation actions, as well as other project under design, such as:

- **The Tanzania Forest Fund (TaFF)** is a mechanism to provide long term reliable and sustainable financial support to Forest Conservation and Sustainable Forest Management (SFM) in the country. The Tanzania Forest Fund is a Public Fund which is a Not-for-Profit organization governed by Board of Trustees. This fund is available at local level and can be accessed by local communities as small grants for activities related to sustainable and resilient forest and landscape management.
- **National Environmental Trust Fund** which is under the Vice President’s Office, Division of Environment. It is an independent grant-making institution that mobilizes, blend and manage financial resources for environmental purposes, such as biodiversity conservation, protection of wildlife, forests, climate adaptation and mitigation and reducing Land degradation and drought.
- **Public Private Partnership (PPP) investment initiatives** to strengthen strategic partnership in the Sumbawanga Cluster in Rukwa Region. Through SAGCOT, US\$ 3,150,000 will be invested in the Sumbawanga Cluster from 2021 to 2030. The investment will be used to strengthen partnership between private sector, government and producers in the targeted areas. The proposed project will replicate good lesson from SAGCOT initiatives to targeted areas including Zanzibar. Small producers will benefit from the PPP initiatives. They will be linked with buyers and large scale producers on the selected horticulture, NUS, Fodder, and NTFPs.
- **Enhancing Climate Change Resilience (ECCR) in the Kagera and Geita Regions of Tanzania.** FAO/GCF proposal to support over one million at risk smallholder-farmers in reducing vulnerability to climate change and adapt to its predicted future impacts. Linkages and synergies between the two projects will be created to avoid duplication of efforts. Alignment between the two proposed projects will be ensured during the PPG stage.
- **National Climate Smart Agriculture Programme (2015 – 2025)**, funded by DFID, and coordinated by VPO and MoA and part of the Agriculture Climate Resilience Plan 2014-2019, which has six strategic priorities, namely: i) improved productivity and incomes; ii) building resilience and associated mitigation co-benefits; iii) value chain integration; iv) research for development and innovations; v) improving and sustaining agricultural advisory services, and vi) improved institutional coordination. The proposed project will promote the uptake of the CSA program in the proposed project areas.
- **Improved adaptive capacity and resilience of vulnerable small holder farming communities in semi-arid areas in Zanzibar and Northern and central zones of Tanzania.** IUCN/GCF proposal to enhance ecosystem resilience towards high agricultural productivity and profitability and improve inclusive livelihood through adoption of climate smart agriculture practices and technologies. Alignment between the two proposed projects will be ensured during the PPG stage.

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

The proposed project's alternative scenario is to promote and adopt more sustainable and resilient land-use management practices and identify diversified livelihood opportunities by applying a landscape and market-driven approach to building resilience in the Miombo region and in Zanzibar. The project will disseminate and promote adoption of climate technologies to develop more resilient value chains for horticulture products, fodder production and marketing systems, and for introducing alternative livelihood strategies. This will be achieved through strengthening policy, institutional, planning and financial frameworks; developing the capacities of key stakeholders including small- and medium-sized enterprises (SMEs) to plan and adopt adaptation technologies, strategies and innovative practices for more resilient livelihoods in the targeted communities.

Project components and their related outputs are aligned to the priority interventions identified in the above-mentioned government programmes and plans, and address the outlined barriers to climate-resilient development in the targeted regions. They are described below.

Component 1 - Improving the enabling environment to promote the uptake of climate change adaptation technologies in priority sectors in Tanzania

Business as Usual Scenario:

As described above, the Government of Tanzania has put in place a comprehensive policy framework (policies, strategies, and legal framework) and a roadmap to promote economic development while undertaking various efforts towards addressing climate change in accordance with the national context. However, inadequate information and data on climate change in the targeted area and lack of financial and technical capacities are preventing an informed decision making at the different level for mainstreaming CC adaptation measures into sectoral planning and implementation.

Adaptation Scenario:

The additional funding (GEF/LDCF USD 400,000) is required to improve relevant policy, legal, institutional and financial frameworks to promote the uptake of climate resilient and adaptation technologies for selected value chains in the agriculture, forestry and livestock sectors at national level and in the targeted areas in the Miombo region and Zanzibar (Outcome 1.1). This will be done through a comprehensive approach, including testing, piloting, and commercialization of adaptation technologies. Complementing the DSL IP child project, this component aims to enhance stakeholder capacity to mainstream adaptation measures into both landscape and sectoral planning and implementation at various levels. A cross-sectoral coordination mechanism/task force will be established (Output 1.1.2), involving key stakeholders including line ministries, private sector organizations, provincial-level representatives, etc. Building on the cross-sectoral coordination mechanism set up as part of the DSL IP, this effort will coordinate closely with the working group tasked with the development of Tanzania's NDC Implementation plan as well its NAP process. The task force will also help to ensure policy and regulatory alignment for adaptation mainstreaming in priority sectors.

Climate change vulnerability and risk assessments will be conducted to identify key issues related to climate change impacts, livelihoods and natural resource use in the project sites (Output 1.1.3). For instance, participatory resilience assessment and mapping, along with livelihood diagnostics will be generated using the Self-evaluation and Holistic Assessment of Climate Resilience of farmers and Pastoralists (SHARP) tool developed by FAO. SHARP will be applied by DSL IP child project in the Miombo region, whereas the LDCF project will conduct the SHARP application in Zanzibar. Their findings will be integrated into the cross-sectoral coordination mechanism to support evidence-based decision-making. Furthermore, these assessments will be used as a basis for identifying, prioritizing and designing cost-effective adaptation solutions to address the specified adaptation problems and vulnerability to climate hazards and their impacts.

Based on preliminary assessments of current practices in the prioritized sectors and selected value chains, gaps and needs will be identified during the PPG phase. Emphasis will be on ensuring that the prioritized adaptation approaches and technologies focus directly on climate impacts, based on the assessed risks and hazards. This will feed into the identification of evidence-based adaptation practices, appropriate technologies and innovative approaches to scale up community adaptation and enhance resilience of the selected value chains (Output 1.1.4).

Building on the above, support will be provided to formulating sector strategies for horticulture, NTFP, woodfuel, NUS and fodder in the targeted regions (Output 1.1.5), in support of SME and agribusiness development including through enhanced private sector investment.

At the provincial level, LDCF resources will be used to mainstream climate change adaptation (focusing on technologies and innovations for three priority sectors) into Medium Term Expenditure Frameworks (MTEF), and landscape management plans (Output 1.1.6). A coordinated effort with both the DSL IP and FAO/GCF ECCR project will be undertaken to ensure a harmonized approach and alignment for adjusting subnational plans with similar objectives. Finally, efforts will be undertaken to identify ways to ensure that adaptation solutions are not only mainstreamed into landscape management plans, but are further integrated into other climate and development planning and more importantly, public and private investment planning processes.

Component 2 - Supporting resilient production systems for resilient livelihoods

Business as Usual Scenario:

Small-holder farmers and livestock keepers are lacking access to the knowledge, agro-meteorological information, tools and networks required to sustainably adopt climate resilient practices and technologies. Production techniques and practices for horticulture, fodder production and NTFP value chains such as beekeeping are becoming inadequate in the face of increasing climate variability and extreme events. Furthermore, agricultural and forestry extension services and systems are not well organized or capacitated to assist producers to adequately adapt to climate change.

Adaptation Scenario:

The additional funding (GEF/LDCF USD 1,500,000) is required to increase the resilience of production systems, landscape and communities in the targeted regions (Outcome 2.1). Key value chains targeted will include horticulture, NUS, woodfuel, NTFP and fodder. Interventions will focus on building capacities of livestock keepers, smallholder farmers, and forest users to reduce climate change risks and vulnerabilities in the targeted areas. The activities of Component 2 will also coordinate and complement other relevant initiatives, namely, the DSL IP, GCF-funded ECCR and IUCN-led GCF proposal, to promote the replication of good innovations/practices to other areas inside and outside of the country.

LDCF resources will be used to establish and support climate change adaptation learning forums/platforms, including within the Forest and Farm Facility (FFF) and Farmer Field Schools (FFS) supported under the DSL IP child project. Focusing on NTFP, fodder and horticulture systems, interventions will include crop rotation and agroforestry, introduction of locally constructed greenhouses (for horticulture), establishment of fodder banks to bridge the forage scarcity during droughts and dry seasons as well as strengthening community seeding of drought tolerant grasses and shrubs (indigenous, such as elephant grass) and community horticulture nurseries.

Activities under Component 2 will promote the testing and upscaling of innovative water harvesting and irrigation systems (e.g. water use efficient technologies) for horticulture, NUS, including through FFS and FFF (Output 2.1.2.) For instance, sustainable water management practices and technologies will be promoted to support sustainable intensification efforts and decrease dependency on irregular rainfall and the limited availability of water (e.g. rainwater catchment, water tanks, small scale irrigation, etc.).

Output 2.1.3 will introduce and support information and communication technologies (ICT) in accessing and use of agro-meteorological information and products to smallholder producers. This activity will be implemented in close coordination with Tanzania's Meteorological Authority (TMA) and will build upon the USAID-supported "Building Capacity to Implement Priority Actions for Resilient Agriculture and Food Security Project in Tanzania, which supports capacity building on conversion of agro-meteorological data and analyses into timely and actionable information available to farmers. Project activities will build capacity on district downscaled weather forecasting and dissemination which will also be linked to Output 2.1.2 through the introduction/rehabilitation of monitoring systems for water availability to promote water savings. The accessibility and use of agro- meteorological information will be strengthened to the end-user (smallholder farmers and producers). Building on this, activities under Output 2.1.4 will ensure that the end-users have sustainable access to ICT equipment and services. For instance, smallholder producers will be trained to use smart phones/tablets/computers linked to Mobile Network Providers for improved market and information access. In this regard, partnerships with network providers (e.g. Zantel, Voda, Tigo and Airtel) will be established to ensure availability of mobile services (internet/Data Services) to the targeted beneficiaries.

Finally, Output 2.1.5 will provide support and capacitate research institutions on mainstreaming climate adaptation actions in horticulture, NUS, NTFP and fodder production, including through training and peer-to-peer learning.

Component 3 - Scaling up adaptation technologies and practices in NTFP, fodder and horticulture value chains through markets and investments

Business as Usual Scenario:

As described above, smallholders have limited access to post-harvest technologies, insurance, information, extension services and inputs. As a result, value-addition remain underdeveloped while post-harvest losses in some case reach up to a staggering 40 %. Moreover, smallholders in the targeted regions are not well linked to markets or financial institutions, making it very challenging for them to financially sustain their production over time.

Adaptation Scenario:

The additional funding (GEF/LDCF USD 1,850,000) is required to enhance the adaptive capacity of local private sector through the transfer and deployment of adaptation technologies to improve value addition and supply chain infrastructure. The proposed activities under Component 3 will coordinate and complement other relevant initiatives focusing on value chain development, namely, the DSL IP, the FOLUR IP (for activities in Zanzibar) and IUCN-led GCF proposal, particularly in terms of training and other learning opportunities as well as the application of relevant tools and approaches.

Outcome 3.1 focuses on introducing and upscaling post-harvest technologies to enhance the climate resilience of local supply chain infrastructure and promote innovations through value addition. LDCF resources will be used to climate proof the supply chain through technology interventions along key stages of the chain:

Climate-resilient storage facilities (including cooling) will be introduced to improve preservation and quality and reduce post-harvest losses (Output 3.1.1). For instance, solar-powered cold storage and solar drying systems will be established to preserve and ensure quality of highly perishable horticulture products or NTFPs such as berries and mushrooms. Similarly, moisture controlled storage technologies for cattle fodder will be introduced in the Miombo region.

Processing and packaging technologies for selected value chains will be introduced (Output 3.1.2 and 3.1.3) and technology innovations for applications that integrate renewable energy/energy efficient measures, including off-grid solutions, will be sought where possible. The selection of processing technologies will be conducted during the PPG phase, but will likely include processing for key high-value products such as spices, fruits and honey. Local SMEs and producer organizations will also receive training in appropriate post-harvest handling and collection centres will be established in strategic locations.

Outcome 3.2 is focused on market access and developing marketing systems, as well as promoting innovative financial and incentive mechanisms (to improve access to finance and other financial products such as micro-insurance) for diversification of activities to enhance the climate resilience of local SMEs, agro-industries and agribusinesses. Activities under Output 3.2.1 will provide training to value chain actors in the use of ICT and how to access domestic and export markets for selected NTFP, fodder and horticulture products through ICT.

LDCF resources will be used to provide technical support and capacity building to strengthen producers cooperatives (emphasis will be on engaging youth and women) for selected horticulture products, NTFP and cattle fodder (Output 3.2.2). For instance, the Market Analysis & Development (MA&D) approach will be applied to support SMEs in

the marketing of NTFPs. Technical support and capacity building will also be provided to SMEs and producer organization groups in the development of business plans and marketing strategies for selected products and commodities (Output 3.2.3). Furthermore, these actors will be linked with micro-credit institutions and supported in increasing their access to domestic and export markets, through the project's engagement with the National Microfinance Bank (NMB) foundation, SAGCOT, Village Community Banks (VICOBA and SACCOS) and other financial institutions (Output 3.2.4). The involvement of financial institutions is also expected to facilitate access to/creation of innovative finance mechanisms for value chain resilience, including bonds (such as green bonds) for resilient production of niche commodities, micro-insurance, as well as creation of credit lines for SMEs and start-up agribusinesses.

Component 4 – Monitoring and Evaluation systems and effective knowledge management

Business as Usual Scenario:

Under the business as usual scenario, CCA best practices and lessons learned are not widely captured and evidence based best adaptation practices/technologies are not disseminated in the targeted areas and in other parts of Tanzania and the region.

Adaptation Scenario:

The additional funding (GEF/LDCF USD 455,914) is required to develop a Monitoring and Evaluation system (M&E) and implement M&E activities, including reporting and the organization of the mid-term and end of project evaluations, and to develop a project-specific communication strategy and plan to ensure common understanding of key project messages and activities, capture and disseminate project best practices and lessons learned. M&E of adaptation innovations as well as of commercialization and financing approaches will also be undertaken under this component.

Project resources will be strategically used for incubation and accelerator at national level, including through the DSL cross-sectoral coordination structure and at regional and Global level through the DSL hub project (Miombo/Mopane Cluster): sharing of evidence based best adaptation practices/technologies in drylands and Zanzibar across the three targeted sectors (forestry, agriculture and livestock), and through Great Green Wall Initiative (GGWI). The project will also leverage on the sectorial associations/platforms facilitated by SAGCOT, capturing and building upon those lessons learnt.

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

The proposed project forms an integral part of the GEF-7 Sustainable Forest Management (SFM) Dryland Sustainable Landscape Impact Programmed DSL IP child project in Tanzania, which seeks to restore and promote the sustainable use of the Miombo ecoregion - the most extensive and increasingly threatened dry forest formation in Tanzania mainland (Tabora, Rukwa, Katavi and Songwe regions) and Zanzibar (Tumbe, Tibirizi and Bumbini).

Complementary to the DSL IP, the LDCF resources will contribute to enhance adaptation and resilience of key value chains, landscapes and stakeholders to climate change impacts.

It will also generate mitigation co-benefits through reduced and avoided forest degradation from implementing more sustainable practices. Specifically, it is estimated that project activities of the DSL IP (with additional support from LDCF) will result in the sequestration of 12.57 million tCO₂ equivalent over 20 years of project lifespan. Furthermore, the LDCF project activities related to introducing renewable energy/energy efficient technologies will also deliver mitigation co-benefits from reduced CO₂ emissions otherwise associated with inefficient energy consumption (such as firewood and charcoal).

The complementarity and alignment between the DSL IP and the LDCF activities will ensure the resilience of agro-ecological systems and forests in Tanzania's drylands by reversing degradation and protecting biodiversity in these systems. The combined efforts will contribute to building sustainable livelihoods through SFM/SLM practices and improving market access through effective private sector engagement, while improving coherence in delivery across sectors through a landscape-level approach. Through the joint effort of the DSL IP and LDCF, project outcomes will contribute toward land restoration and land degradation neutrality targets, resulting in an estimated 5,000 ha of land restored. In addition, 889,879 ha of land will be under improved practices, of which 538,292 ha of forest will be under SFM, 54915 ha (rain-fed annual crops) under agro-forestry, 46,672 ha (rain-fed mixed crops) will include Miombo tree species and finally 10,000 ha of rangeland will be improved.

The coordinated effort of the LDCF will also strengthen the DSL IP's impact in terms of protecting the biodiversity and ensuring its sustainable use within Tanzania's key dryland forest ecosystem. The Miombo woodlands together with Zanzibar represent a global biodiversity hotspot with irreplaceable endemism while providing various ecosystem goods and services. The GEF-LDCF programming will enhance the conservation of these ecosystems and their biodiversity thereby ensuring the resilience of the surrounding farmland and communities, especially under climate change.

In addition to the DSL IP, the LDCF project will coordinate and complement the Food System Land Use and Restoration (FOLUR) IP child project in Tanzania, particularly in terms of both projects' activities in Unguja, Zanzibar. Initial discussions with the implementing agency (WWF) have identified value chain development and capacitation of SMEs as a key intervention area of complementarity. Coordinated efforts will therefore seek to ensure that mechanisms and approaches are shared between the LDCF and FOLUR projects in Zanzibar, including in capturing and sharing of best practices and lessons learnt, along with scaling up innovations for improved market access and ecosystem resilience.

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

Tanzania is a least developed country and is highly vulnerable to the effects of climate change and variability. The risk of climate hazards pose an increasing threat to the communities whose livelihood depends on the agriculture, forestry and livestock sectors, particularly in Tanzania's drylands and low-lying islands. The increasing impacts on climate-sensitive sectors combined with persistent poverty and low capacities to adapt to climate change add to the precarious situation of vulnerable communities in the targeted regions. Moreover, unsustainable land-use practices, saltwater intrusion, shifting cultivation, overgrazing, wood fuel extraction and charcoal production, and uncontrolled fires are eroding the resilience of the landscape, leaving the ecosystem extremely vulnerable to climate change impacts.

In the absence of alternative livelihoods such as diversification of crops, access to markets and income sources and with limited availability of evidence-based knowledge, tools and skills to adopt appropriate adaptation practices and technologies, communities are left with little means to implement resilient livelihood strategies. Furthermore, inadequate attention is also given to support producer organizations, which could create options at a viable scale for local communities that currently have no other choice than unsustainably exploiting the production systems that their livelihoods are dependent upon.

Without targeted investments and technical inputs, this negative trend is likely to escalate further as climate change impacts continue to increase in intensity and frequency. However, given Tanzania's LDC status, there is limited public financing available to provide the support needed at community level. Private investments also remain low due to the investment risk involved and high transaction costs. Additionally, due socio-economic conditions in the targeted regions, smallholder producers and SMEs do not have the financial resources nor access to credit to climate-proof their practices, supply chains and businesses without external support. The proposed project will therefore not take place without the involvement of the LDCF.

The proposed LDCF project builds on, and is complemented by, the efforts of several ongoing baseline initiatives that operates the targeted scope and regions (see section baseline above). The use of LDCF funds will target the margin between the current baseline investments and a climate-resilient development scenario that promotes adaptation technologies and incorporates innovative approaches and practices to enhance community resilience. Furthermore, through the project's engagement with financial institutions such as National Microfinance Bank (NMB) foundation, SAGCOT and Village Community Banks (VICOPA and SACCOS), the LDCF resources will seek to increase the availability of capital and other forms of finance to SMEs and small-scale agribusinesses to make investment in adaptation technologies and approaches, beyond business as usual.

6) adaptation benefits

The proposed project is directly aligned with the goal of the **LDCF/SCCF Programming Strategy 2018-2022**, through its efforts to strengthen resilience and reduce vulnerability of Tanzanian communities and landscapes to adverse impacts of climate change. In response to the enhanced emphasis on private sector engagement in the LDCF strategy, the project is promoting an ecosystem-based and market-driven approach to build resilience in key ecosystems and to strengthen the adaptive capacities of local private actors and SMEs. The project's alignment with the first two objectives of the LDCF strategy and consequent adaptation benefits are outlined below.

LDCF Objective 1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation. LDCF resources will be used in a catalytic and complementary manner to enhance the resilience of priority sectors that contribute to the livelihoods of the targeted communities, in particular women and youths in a holistic manner. This will be achieved by introducing, testing and adapting selected appropriate technologies and innovative practices as well as associated knowledge and skills to increase the efficiency and profitability of horticulture, NTFP and cattle fodder while decreasing pressure and degradation of the landscape and vital ecosystem services that communities depend upon.

LDCF Objective 2: Mainstream climate change adaptation and resilience for systemic impact. The project will lead to the mainstreaming of climate resilience and adaptation into sectoral planning and programming in the targeted regions. At national level, the project will strengthen the capacity of national institutions to integrate climate change adaptation into their programming. At the regional level, lessons learnt from the project will be shared, including through the DSL IP regional Miombo cluster, which also presents platform to foster partnerships and collaboration for systemic impact across the region. Additionally, the LDCF project will coordinate closely with the GCF ECCR project and IUCN-led GCF project to enhance LDCF-GCF complementarity and efforts on mainstreaming climate resilience for systemic impact.

The proposed project is expected to increase resilience and reduce vulnerability of 27,000 hectares of land along with 82,000 direct and 200,000 indirect beneficiaries of which 35% male and 45% female and 20% are youth. Exact number of women and youth will be provided and gender action plan will be developed during the PPG stage.

7) innovation, sustainability and potential for scaling up.

Innovativeness

The project provides an innovative approach to community-level climate change adaptation in Tanzania, particularly through its focus on technologies to enhance resilience in production systems and along value chains. For instance, the project is innovative in its complementarity with DSL IP, and the efforts to bring technology innovations into the targeted DSL IP region, toward building resilience of both the communities and ecosystems. By providing alternative livelihood opportunities through technology transfer, the project also enhances the impact of the DSL IP by alleviating pressures on the landscape.

The project's market-driven approach is innovative in terms of climate change adaptation, particularly the activities for identifying and introducing appropriate technologies and practices to support vulnerable communities in accessing market opportunities that they are currently excluded from. To date, several technologies and practices have been developed, tested and evaluated in Tanzania. The project will build on these outcomes to ensure that technologies are matching the specific needs of the project beneficiaries. The specific technology interventions are expected to generate innovations through value addition/commercialization while also reducing post-harvest losses (such as through the use of ICT), altogether increasing the productive output and thereby more resilient livelihoods in the targeted communities.

Finally, the project is innovative in its selection of horticulture, fodder, NTFP, NUS and woodfuel as priority areas for enhancing climate change adaptation. These five sub-sectors are currently underdeveloped in the targeted regions but at the same time they represent untapped opportunities for innovations and entrepreneurship, particularly through creation and participation in certification schemes, which is becoming increasingly attractive to both youth and for women empowerment. A set of criteria will be used for prioritizing technologies (to be determined during PPG), based on their anticipated adaptation and resilience impact, cost-effectiveness, sustainability to maintain and co-benefits in terms of employment.

Sustainability

The proposed LDCF project aims to tackle various scales, sectors and stakeholders in a multi-governmental approach that involves national authorities, private sector and local communities and leaders. In terms of developing ownership for adaptation measures among the local communities, participatory approaches will be a key tool in the project planning process.

The intention is to facilitate the development of community-led innovation to adapt to climate change, bringing in local knowledge and devolving responsibility amongst drylands communities in Miombo and Zanzibar. Moreover, sensitization and awareness at local level will be carried out through seminars and workshops adopting a community-based approach, and with targeted inclusion of women and youth, as well as by producing and disseminating learning material. Information and education are essential components to empower forest-dependent communities, pastoralists and small-holder producers, as they are central tools to adapt to climate change. Specific training to foster SME development on approaches and strategies will contribute to better resilience and sustainability of the project results.

Scaling up

The project will scale up climate-resilient practices and technologies for dryland communities that are suited to wider dissemination and large-scale adoption in Tanzania. By illustrating that these technologies lead to diversified livelihood opportunities through increased incomes, improved value chain efficiency, food security and nutrition, the project will promote their uptake in other areas of Tanzania, and potentially in neighboring countries.

Two parallel strategies can further support the upscaling of adaptation approaches promoted by this project. One is the proliferation of private-sector links for farmer groups and SMEs to integrate with markets and industries (including through certification) that support sustainable practices. The other is the integration of such practices and technologies within national development programmes implemented by government and other partners.

The project's integration with the DSL IP also provides solid platform for scaling out the innovations and best practices generated by the LDCF to other countries in region. Furthermore, emerging lessons from the project are expected to feed into two GCF initiatives currently in concept note stage (led by FAO and IUCN), thereby using these future investments as a launch pad for scaling up.

[1] Tanzania's second Five-Year Development Plan

[2] World Bank: Tanzania 2019 Country Environmental Analysis Report: *Environmental Trends and Threats, and Pathways to Improved Sustainability*

[3] https://www.ifad.org/documents/38711624/40089486/eb_2016_117_r_11_0002-391-3464.pdf/526d62c8-8a19-49ff-b609-f5e270e5f209?1517980132471=

[4] Tanzania's second Five-Year Development Plan

[5] These include the PAs of Katavi-Rukwa-Lukwati, Rungwa-Kizigo-Muhesi, Itulu Hills and Kalambo waterfalls

[6] URT, 2012. National Climate Change Strategy.

1b. Project Map and Coordinates

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



2. Stakeholders

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

Indigenous Peoples and Local Communities

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.

As part of the PIF formulation, the project team consulted with relevant central-level government ministries, research institutions, civil society organizations, and private sector entities, and their inputs have informed the design of the LDCF project. Two consultative workshops were held in Dar es Salaam (15 March and 9 August, 2019) and a stakeholder consultation was organized in Zanzibar on 7 August 2019. The main stakeholders engaged include the Tanzania Forest Service Agency (TFS), Ministry of Agriculture, Ministry of Livestock and Fisheries, Ministry of Water and Irrigation, Ministry of Agriculture, Natural Resources, Livestock and Fisheries (Zanzibar), the Vice President's Office (VPO) - Division of Environment, and Regional Administration and Local Government (PO-RALG). Consultations with financial institutions and private sector include representatives from SAGCOT and NMB Foundation and with donor agencies and donor-funded projects such as EU, World Bank, SNV, WWF, IUCN, IFAD and UNDP.

It is envisioned that VPO will be the lead executing agency for the project. It will be in charge of overall coordination of project implementation, as well as cross sectoral policy aspects and intersectoral coordination. Other executing organizations were identified and could include:

- TFS for forestry aspects and NTFPs;
- Forest and Beekeeping Division (FBD), under the Ministry of Natural Resources and Tourism (MNRT) which could be leading, together with TFS, strategic/policy outputs related to beekeeping and NTFP (especially regarding beekeeping for the latter for which the Beekeeping Training Institute in Tabora under FBD could provide specific beekeeping trainings to beekeepers, as well as provide beekeeping equipment (beehives, colonies, etc.));
- Ministries in charge of Agriculture and Livestock for Mainland and Ministry of Agriculture, Natural Resources, Livestock and Fisheries (Zanzibar) which could be leading on agriculture/horticulture and livestock related outputs;
- The National Land Use Planning Commission (NLUPC);
- PO-RALG which will be involved, together with VPO, in the implementation of planning related outputs.

Other key public stakeholders expected to be consulted and involved in the LDCF project include Tanzania Forest Research Institute, Tanzania Horticultural Foundation (TAHA) and University Of Dar es Salaam-Center for Climate Change Studies. The following CSOs will also be engaged in the LDCF: Tanzania Civil Society Forum on Climate Change, Zanzibar Climate Change Alliance (ZACCA), Tanzania Forest Conservation Group (TFCG), Community Forest Conservation Network of Tanzania (MJUMITA), Climate Smart Agriculture Youth Network (CSAYN) Tanzania Chapter, Tanzania Traditional Energy Development and Environment Organization (TaTEDO), Mlele Foundation, Foundation for Energy, Climate and Environment, World Agroforestry Centre (ICRAF), NTFPs women groups and the Livestock keepers Union. Moreover, Village Community Banks (VICOBA and SACCOS) along with national and regional financial institutions, commercial banks and insurance providers will also be consulted and engaged in the LDCF project.

During PPG, consultations will be undertaken with local communities, local NGOs including women's groups, private sector representatives and provincial and community-level government officials. A stakeholder mapping, as well as a stakeholder engagement and capacity needs assessment will also be conducted during the PPG process.

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).

The project will follow the guidance and recommendations of both the GEFs and FAOs Policy on Gender Equality and the GEF Gender Implementation Strategy, and will build upon Tanzania's Women and Gender Development Policy and the National Strategy for Gender Development. A gender analysis and assessment (jointly with the DSL IP child project) will be undertaken during the PPG phase to provide the basis for understanding gender roles and relations, identify existing structural and socio-cultural constraints as well as opportunities for meaningful participation in the project by women. To ensure that they get equal and priority access to project services and benefits, the LDCF project will adopt measures to increase women's participation and influence in (among others) community-based participatory planning, and a minimum level of approved activities must be a priority for women.

Gender-specific specific groups will be established to identify and support potential women entrepreneurs, in particular for post-harvest handling of NTFP, horticulture and other high-value crops as well improve their access to credit and financial capacities. Efforts will also be undertaken to examine specific roles for women in value addition and/or participation in certification schemes, and specific opportunities for women to develop flexible supplementary sources of income such as craft making. The choice and promotion of specific value chains will also be considered in the context of the different uses and practices of men and women in the targeted areas.

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?

TBD

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Strengthening the adaptive capacities of local private sector, including SMEs through climate resilient value chains and agribusiness development is the foundation of the project. The project will focus on introducing/strengthening producer organizations and private sector entities engaging in value chains of key commodities of horticulture and other high value crops, NTFP and cattle fodder. The project will provide support to forest-dependent communities, pastoralists and small-holder producers to enable linkages with micro-credit and financial institutions.

The project is also expected to upscale best practices and means for improving access to credit and other forms of finance and insurance to make investments in adaptation solutions, identified from various ongoing public-private partnerships initiatives e.g. the Southern Agricultural Growth Corridor (SAGCOT) and NMB Foundation initiatives in Tanzania, which aims at attracting and leveraging resources from the private sector in the agriculture sectors.

Additionally, the project will engage with private sector entities such as Tanzania Certification Organisation (TANCERT), Tanzania Horticulture Association (TAHA), Tanzania Beekeeping Organization (TABEDO), the Private Agricultural Sector Support Trust (PASS), Mtandao wa Vikundi vya Wakulima Tanzania (MVIWATA) - a national farmers organization, UWAMWIMA - association of fruit and vegetable farmers in Zanzibar, the Tanzania Private Sector foundation, and the Agriculture Marketing Development Trust (AMDT). Furthermore, the Ministry of Livestock and Fisheries will involve its private sector desk, to support the projects' efforts for marketing of cattle feed through agribusiness models and entrepreneurship incubators.

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)

In line with FAO's Environmental and Social Safeguards, the project has been screened against Environmental and Social risks and rated as low risk (see certification in roadmap section) . No FAO safeguards were triggered. The risk level will be further re-confirmed at PPG in line following FAO's stakeholder engagement processes. The Agency will make sure that all mitigation measures vis a vis any potential adverse impact are duly considered in the ceo-endorsement package.

Risk	Level	Mitigation measures
Limited cross-sectoral coordination among concerned ministries and local government authorities	Medium	Clear cross-sectoral arrangements for implementing project and pilot activities that specify the roles and responsibilities of the relevant organization will be maintained throughout the project. The project will further ensure effective inter-agency collaboration and coordination in the project activities.
Weak community engagement	Low	The second and third component of the project is designed to build resilience among dryland-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 priorities.
Community interest may decline 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 diminish	Medium	Effective participation of community on the sustainability of the project should be promoted through the process of design and implementation. Community are supposed to be central part in decision making on the proposed intervention through bottom up approach. During the PPG stage, community consultations and engagement will be conducted. This will lead to effective participation and ownership of the project by the community.
Extreme events during the project implementation period could undo adaptation benefits 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, 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 climate risk analysis and comprehensive institutional analysis and management structure, which will be scoped during the PPG phase.
Climate change adaptation priorities undermined by national emergencies	Medium	The project design phase, and the project management team, will keep abreast of national events and politics to plan contingency activities when/if necessary.
Project activities are delayed	Medium	Efforts will ensure engagements with the government to maintain its commitment to the proposed project and integrate the objectives of national development policy in decision-making throughout the project to maintain government commitment.
Limited technical capacity to conduct preliminary studies and design the implementation of activities.	Medium	The project will identify and develop human resource capacity as required and engage field officers to work closely with the project manager of the proposed project to ensure timely delivery of project outputs.
Limited uptake of climate vulnerability information by relevant stakeholders	Medium	The climate vulnerability information generated by the project will be designed through a consultative process to respond to the specific needs of the different stakeholders while also ensuring user-friendliness of the different outputs to the specific audience/stakeholders.

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.

During the PPG process, an operational capacity assessment will be conducted of the Vice President's Office (VPO) with the intention of VPO being the main executing partner for the project. Other likely national executing partners include the Tanzania Forest Service Agency (under the Ministry of Natural Resource and Tourism) as well as other relevant agencies. VPO has also indicated that given the integrated, cross sectoral nature of the project's adaptation scope, it may want FAO to provide execution support of some targeted technical activities under the project.

To ensure satisfactory delivery, monitoring and reporting of project outputs, a Project Steering Committee (PSC) and a Project Implementation Unit (PIU) will be established within the first six months of the project. The PSC will provide policy and strategic advice for project implementation, and communicate project outcomes with other ministries. It will comprise representatives from the Vice President's Office - Division of Environment, Tanzania Forest Service Agency (TFS), Ministry of Agriculture, Ministry of Livestock and Fisheries, Ministry of Water and Irrigation and Ministry of Agriculture, Natural Resources, Livestock and Fisheries (Zanzibar), as well as representatives of the provincial governments in targeted provinces, leaders of agricultural cooperatives, and civil society and private-sector stakeholders.

Responsibilities of the PIU will include project implementation planning, budgeting, preparation of bidding documents for all services to be procured, awarding contracts, engaging consultants, assuring quality assurance for all project-financed activities, disbursement of funds, assuring compliance with due diligence, liaising with relevant ministries and their provincial agencies, establishing project performance and financial management systems, and assuring regular progress reporting to provincial and national authorities as well as financing institutions. The PIU will appoint incremental staff to assist in day-to-day project management activities. The PIU will be supported by project management and implementation consultants.

The project will coordinate with relevant agencies and projects (described above and in the section on associated baseline projects) to avoid overlap and double-spending of resources. Synergies and areas for collaboration with these other initiatives will be mapped during the PPG phase, with agreement on common activities and cost-sharing explored and agreed. Close coordination with relevant GCF-funded initiatives in Tanzania will also help to establish GCF-LDCF complementarity efforts, thereby laying ground for enhanced coordination with future planned GCF investments in the country. In particular and in addition to those described in the baseline section, the LDCF project will coordinate with the GCF-funded Simiyu Climate Resilient Development Programme and the UNEP-led GCF initiative entitled "Increasing Agricultural and Ecosystem Resilience through Ecosystem-based Adaptation Agroforestry" (concept note stage) among others.

Preparation of the project implementation plan and schedule will be completed within the first six months of the project. It will involve all the key stakeholders at ministerial, provincial, district and commune levels, with PIU taking the lead. The project reporting system will be based on the monitoring and evaluation system, and will include quarterly, annual, mid-term and final reports. During the first year of the project, a baseline survey will be completed to ensure that project progress can be properly assessed.

The LDCF project will also build on and align with GEF-7 framework by upscaling best practices of GEF projects and adaptation initiatives in the country. Further to that, the proposed project will draw on the existing and planned investment in the agriculture, forests, water and livestock sectors in the targeted areas. Close coordination with these initiatives will ensure the projects' impact at scale while avoiding potential duplication of effort.

The proposed project will leverage on projects funded by GEF and LDCF as a baseline and build upon good lessons and practices in the targeted areas. Such projects include;

Mainstreaming Sustainable Forest Management in the Miombo Woodlands of Western Tanzania funded by GEF, implemented by UNDP. The project aims to improve sustainable use and management of natural resources derived from Miombo woodlands; to strengthen the skills and capacities for Community Based and Joint Forest Management and it also aims to promote energy switch to sustainable charcoal reducing pressures on the woodland and supporting broader livelihood options.

Food-IAP: Reversing Land Degradation trends and increasing Food Security in degraded ecosystems of semi-arid areas of Tanzania funded by GEF and implemented by IFAD. The project aims reverse land degradation trends in central Tanzania and Pemba (Zanzibar) through sustainable land and water management and ecosystem-based adaptation. It follows a landscape approach to reconcile agriculture, biodiversity conservation, livestock grazing and other competing land uses in order for ecosystem services and their usage to co-exist within the landscape.

Strengthening Climate Information and Early Warning Systems in Tanzania to Support Climate Resilient Development and Adaptation to Climate Change funded by LDCF and implemented by UNDP. This project will initiate Integrated Water Resource Management (IWRM) frameworks in the Pangani River Basin of Northern Tanzania. These frameworks will address climate change and pilot adaptation measures. It is one of the first field-based climate change preparation projects in Eastern Africa with strong links to basin and national planning and policy, and as such will build national and regional capacity, provide lessons and serve as a national and regional demonstration site.

Ecosystem-Based Adaptation for Rural Resilience funded by LDCF and implemented by UNEP. The project aims to increase resilience to climate change in rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods. The project is implemented in Kishapu (Shinyanga) outside the Lake Victoria Zone, among others.

Safeguarding Zanzibar's Forest and Coastal Habitats for Multiple Benefits funded by the GEF and implemented by UNDP. The project will implement a landscape approach to safeguard Zanzibar's terrestrial and coastal forest habitats for multiple benefits. The development of cost-effective and sustainable solutions to reduce the detrimental impacts of poor biodiversity and ecosystem management is central to all aspects of this project.

The proposed project is designed to build upon and align with on-going and recently completed initiatives. Some key programmes relevant to this project are described below.

Building Capacity for Resilient Agriculture and Food Security Project in Tanzania (2017-2020) (Budget: US\$ 348,000). The three years project is supporting Tanzania Meteorological Authority (TMA) to develop capacity into conversion of agro-meteorological data and analyses into timely and actionable information available to farmers. The project is implemented with technical support from the coordinated by US Department of Agriculture.

Support sustainable value chain development for job creation, food and nutrition security 2018-2021 (US\$ 1,648,998). This project is promoting youth engagement in Agriculture sector in Tanzania. This project is part of the UN Joint programme under the UNDAP framework. FAO specifically contributes to the outcome group of Economic growth and Employment, focusing on training and empowering young farmers and young agri-entrepreneurs on selected value chains including sunflower, horticulture, apiculture (beekeeping), orange flesh sweet potatoes, spices, and seaweed.

The Global Climate Change Alliance Program (GCCA) in Tanzania: Integrated approaches for climate change adaptation (2015-2020), supported by the EU, with an overall objective to increase local capacity to adapt to climate change, by supporting the establishment of a number of eco-villages where adaptation measures are tested in sectors such as agriculture, rangeland management, water management, sanitation and biomass energy.

FAO is working with the Ministry of Natural Resource and Tourism (MNRT) in developing training module on Forest, Food Security and Nutrition. The project is building capacities of forest training institutes. The proposed project will benefit from the on-going initiative whereby Tabora Beekeeping training Institute will train beekeepers.

FAO, African Union Commission (AUC) and the Rockefeller Foundation (RF) are collaborating on a project to support the African Union in the development of policies and strategies for country-specific plans to reduce post-harvest losses. In this framework, FAO in collaboration with Agricultural Non State Actors Forum (ANSAF), and HELVETAS Swiss Interco-operation (HSI) have supported the Ministry of Agriculture (MoA) in the finalization of the National Post-Harvest Management Strategy (NPHMS) 2017-2027.

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

Tanzania's development agenda is guided by the country's **Development Vision 2025**, which spells out the overarching goals for achieving economic growth and poverty reduction. The road map to achieving these goals are laid out in Tanzania's **Long Term Perspective Plan**, with the **Five Year Development Plans (FYDP and FYDP II)** acting as implementing vehicles. The proposed LDCF project is fully aligned with the priority actions for the agriculture, livestock and forestry sectors such as removing barriers that are constraining value addition and export activities as wells as harnessing the country's potential for increasing the productive output in areas of beekeeping, horticulture, NUS, woodfuel and cattle fodder. In particular, the project will contribute to the following key interventions, prioritized in the FYDP II: Increasing the use of modern technologies including ICT and extension services; value chain development and skills promotion along the value chains; quality and standards; improved infrastructure (transportation, energy, water supply and irrigation, warehousing including cold chains); promotion of producer groups; alternative products and promoting marketing; improved access to financial services; and SMEs.

At the sectoral level, the project will contribute towards the implementation of priority areas specified within the four overall strategic objectives (SO) outlined in the country's **Agricultural Sector Development Program Phase II (ASDP II)**, which include climate change adaptation as a cross-cutting theme: SO1: Expanded Sustainable Water and Land Use Management; SO2: Improved Agricultural Productivity and Profitability; SO3: Strengthened and Competitive Value Chain; SO4: Strengthened Institutions, Enablers and Coordination Framework. Project activities specific for Zanzibar are directly aligned with the **Zanzibar Agricultural Sector Development Program (ZASDP)**.

The project is fully aligned with Tanzania's **National Climate Change Strategy** (2012) and its overarching goals of building capacity to adapt to climate change impacts, particularly the strategic objectives and interventions listed under the sectors/themes covering water resources, forestry, agriculture and food security, energy, livestock, and land use. The LDCF project interventions will directly contribute to the implementation of several of the strategic interventions highlighted under each of those sectors/themes as well as the achievement of their objectives such as promoting the use of appropriate technologies for production, processing, storage and distribution; promoting water management technologies; promoting the use of NTFP; alternative energy sources; acquire appropriate technologies for livestock production systems; mainstream climate change into land use planning; etc. The project's activities in Zanzibar are also fully aligned to the **Zanzibar Climate Change Strategy** (2014) and its objectives to build climate resilience in the key sectors of agriculture and tourism. Specifically, the LDCF project addresses adaptation objectives in these sectors by enabling access of local horticulture producers with the hotel industry, which currently rely on horticulture imports from mainland and beyond.

The proposed project is also aligned with Tanzania's **Nationally Determined Contribution (NDC)**, which is guided by the National Climate Change Strategy. The NDC outlines the intended adaptation contributions for the agriculture, livestock and forest sectors, in which the project will directly contribute to areas such as strengthening knowledge, extension services and agricultural infrastructures to target climate action; promoting livelihood diversification of livestock keepers; and enhancing sustainable forest management along with management of saltwater intrusion. The proposed project will provide back-up of intended contributions for adaptation priorities by supporting building adaptive capacity and enhancing long-term resilience of the agriculture sector to avoid adverse climate change impacts in the targeted seven districts.

Tanzania is initiating the process of formulating an **NDC Implementation Plan** and **National Adaptation Plan (NAP)** in order to further integrate climate change adaptation into sectoral policy and budget planning, towards meeting its medium- to long-term adaptation needs. Both processes will build on the strategic objectives and interventions spelled out in the National Climate Change Strategy, which the project is aligned to as outlined in the above. Furthermore, Component 1 and 4 of the proposed project are also expected to contribute towards implementation of sectoral priorities (agriculture, livestock and forestry) specified in the NAP and NDC Implementation Plan.

The LDCF project is aligned with the two prioritized sectors (agriculture and water) identified through Tanzania's **Technology Needs Assessment (TNA)** for adaptation technologies. Improved seed varieties and water technologies (drip irrigation and rainwater harvesting) represent key priorities for adaptation and it is expected that this project will help to address the barriers for transfer and diffusion of both improved seed varieties and water saving technologies in the agriculture sector, particularly for the production of horticulture and other high value crops.

Tanzania submitted its **Second National Communication** under the UNFCCC in 2014, which provided an assessment of vulnerabilities and climate change impacts for the agriculture, rangeland and livestock, and forestry sectors as well as the potential adaptation options which are in line with proposed LDCF project.

The proposed project is also aligned with a number of priorities outlined in Tanzania's **National Adaptation Programme of Action (NAPA)** from 2007. In terms of its ranking of sectors, the NAPA places activities for agriculture and food security (including livestock) as the number one priority, whereas water and forestry come in as the second and fourth priority, respectively. The proposed project will contribute to the implementation of priority activities listed under these sectors such as water efficient technologies to boost crop production; alternative farming systems; range management for livestock production; promote water harvesting and storage facilities; as well as strengthening community based forest management practices.

Finally, the project is aligned with Tanzania's **National Biodiversity Strategy and Action Plan (NBSAP)** 2015-2020, and in particular its target 15, which aims to “ *by 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.*”

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.

Knowledge management is an integral part of this proposed project. The project will develop and record lessons learned, elaborate cutting-edge training modules to train relevant government and civil society organizations, private sector, farmers, and other partner organizations and local community and user groups, to use and transfer resilient livelihood, technology, and innovative practices, to develop “how-to” guidelines for use by farmers and to monitor and record project results.

The project will also take initiatives to disseminate best practices and lessons learned, training, and knowledge materials and guiding document through workshop, seminar, conference, and electronic and print media for the wider impact. Institutional and human capacity building through comprehensive training will be an important part of this project's components which will foster knowledge-based development and vulnerability reduction in the targeted areas. Learning platform/forums will be established. The platforms will be used for sharing of CCA evidence based knowledge. The best practices will be scaled out, disseminated, and replicated to other areas within and outside Tanzania.

Finally, the project will enable stakeholders at the national, regional and local level to have access to improved knowledge and data through development of mechanisms for inter-regional knowledge sharing (including in terms of best practices for catalyzing private sector investments), peer-to-peer learning, systematic long-term approaches to capacity building, and dissemination of useful information.

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
Faraja Ngerageza	GEF Operational Focal Point	VICE PRESIDENT’S OFFICE	10/31/2019

ANNEX A: Project Map and Geographic Coordinates

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

