



GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: Least Developed Countries Fund

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PART I: PROJECT INFORMATION

Project Title: Ecosystem-Based Adaptation for Rural Resilience in Tanzania			
Country(ies):	Tanzania	GEF Project ID: ¹	5695
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	01255
Other Executing Partner(s):	VPO-DOE with Ministry of Agriculture, Livestock and Fisheries (MALF)	Submission Date:	May 30, 2016
GEF Focal Area (s):	Climate Change	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP <input type="checkbox"/>	
Name of Parent Program	[if applicable]	Agency Fee (\$)	719,267

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
(select) CCA-1 (select)	Outcome 1.1: Vulnerability of physical assets and natural systems reduced	LDCF	3,392,616	9,936,666
(select) CCA-1 (select)	Outcome 1.2: Livelihoods and sources of income of vulnerable populations diversified	LDCF	3,392,617	9,936,667
(select) CCA-2 (select)	Outcome 2.3: Access to improved climate information and early-warning systems enhanced at regional, national, sub-national and local levels	LDCF	786,000	876,667
Total project costs			7,571,233	20,750,000

B. PROJECT DESCRIPTION SUMMARY

Project Objective: to increase resilience to climate change in rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods						
Project Components/ Programs	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
Component 1. Capacity to adapt to climate change through EbA approaches.	TA	1. Improved stakeholders capacity to adapt to climate change through EbA approaches and undertake resilience building responses	1.1 A GIS-based knowledge management system on climate change adaptation that supports planning 1.2 Individual and institutional capacities on EbA adaptation strengthened	LDCF	305,000	580,000
Component 2: EbA for rural resilience	TA	2. Increased resilience in project sites through demonstration of EBA practices and	2.1 Local authorities, committees and user groups trained on adapting communities to	LDCF	6,475,233	19,480,000

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

³ Financing type can be either investment or technical assistance.

		improved livelihoods	climate change using EbA. 2.2 Locally-specific climate change vulnerability, risks and adaptations options are identified by local stakeholders. 2.3 Ecosystem services are rehabilitated through the implementation of EbA practices (ecosystem rehabilitation, sustainable management and conservation of natural resources) 2.4 Income is increased and maintained across seasons, through sustainable and resilient livelihoods			
Component 3: Knowledge management on climate change adaptation and upscaling.	TA	3. Strengthened information base on EbA supports an upscaling strategy	3.1 Project lessons, knowledge on Climate change adaptation and resilient livelihoods using ecosystems captured, stored and widely disseminated	LDCF	326,000	100,000
			M&E	LDCF	110,000	100,000
			Subtotal		7,216,233	20,260,000
			Project Management Cost (PMC) ⁴	LDCF	355,000	490,000
			Total project costs		7,571,233	20,750,000

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
Recipient Government	Ministry of Agriculture, Livestock and Fisheries	Grants	10,075,000
Recipient Government	Ministry of Water and Irrigation	Grants	10,075,000
Recipient Government	VPO	In-kind	600,000
Total Co-financing			20,750,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF	Trust	Country	Focal Area	Programming of	(in \$)
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⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Agency	Fund	Name/Global		Funds	GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UNEP	LDCF	Tanzania	Climate Change	(select as applicable)	7,571,233	719,267	\$8,290,500
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
(select)	(select)		(select)	(select as applicable)			0
Total Grant Resources					7,571,233	719,267	\$8,290,500

a) Refer to the Fee Policy for GEF Partner Agencies

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁵

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	<i>hectares</i>
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	<i>Up to 9,000 hectares</i>
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	<i>Number of freshwater basins</i>
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	<i>Percent of fisheries, by volume</i>
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO _{2e} mitigated (include both direct and indirect)	<i>metric tons</i>
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	<i>metric tons</i>
	Reduction of 1000 tons of Mercury	<i>metric tons</i>
	Phase-out of 303.44 tons of ODP (HCFC)	<i>ODP tons</i>
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	<i>Number of Countries:</i>
	Functional environmental information systems are established to support decision-making in at least 10 countries	<i>Number of Countries:</i>

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? (Select)

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF⁶

⁵ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

⁶ For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter “NA” after the respective question.

In order to meet the country's current context and requirements the following changes have been made to the Components, Outcomes and Outputs as detailed in the table below.

Table 1: Changes since the PIF

PIF	CEO endorsement	PIF	CEO endorsement	CEO endorsement
Project component/ expected outcomes	Project component/ expected outcomes	Expected outputs ⁷	Expected outputs	Justification of the change to the PIF
1.1 Enhanced stakeholders' capacity to advance adaptation to climate change impacts and undertake resilience building responses	1. Improved stakeholders capacity to adapt to climate change through EbA approaches and undertake resilience building responses	1.1 A multi-disciplinary national committee established that facilitated cross cutting national dialogue on climate change adaptation in vulnerable sectors.	1.1 A GIS-based adaptation knowledge management system (AKMS) that supports planning	Syntax change on the outcome. Thanks to knowledge gained during the field mission, it was found that Outputs 1.3 and 1.4 were redundant, therefore they were both merged into Output 1.1.
		1.2 Local authorities, committees and user groups trained on supporting communities to adapt to climate change with a focus on using EbA approaches.	1.2 Training and guidance provided to a cadre of knowledgeable resource persons on ecosystem-based adaptation	Upon careful analysis of the theory of change and with the modification of Outcome 1, it was found that Output 1.2 (local authorities, committees and user groups training) was more relevant under Outcome 2, as Output 2.1. The new Output 1.2 targets civil servants in central and decentralized sectoral ministries, staff from VPO, NGOs, as well as consultants to build their capacity on EbA approaches, through a training of trainers organized to create a cadre of knowledgeable resource persons on ecosystem-based adaptation at the national level.
		1.3 A stocktaking exercise undertaken and revisions of existing climate change policies and strategies produced to identify entry points for climate change adaptation		This output was constructed as an activity and the activity was removed from the project design. Therefore the output was merged with output 1.1 and activities leading to it were reshaped.

⁷ In case of a single focal area, single country, single GEF Agency project, and single trust fund, no need to provide information for this table.

		1.4 Policy briefs and technical guidelines developed and distributed for policy – and decision makers on increasing the resilience of local community livelihoods to climate change using appropriate EbA approaches and knowledge gained from demonstration activities in Component 2.		This output was actually an activity. It was maintained in the project design, but the output was merged under 1.1.
Reduced vulnerability in four vulnerable rural districts of the central Plateau and Zanzibar through demonstration of EbA approaches	2. Increased resilience in project sites through demonstration of EBA practices and improved livelihoods	2.1 Locally specific climate change impacts, vulnerability and risks are identified and adaptation options are identified by local stakeholders	2.1 Local authorities, committees and user groups trained on adapting communities to climate change using EbA.	Syntax of Outcome 2 was reformulated to reflect the new outputs. The new Output 2.1 is from the initial Output 1.2. Upon careful analysis of the theory of change, it was found that training at the local level should be done in conjunction with 2.2 to build local capacity on assessing vulnerability and impacts from climate change.
		2.2 EbA pilot practices and climate resilient alternative livelihoods implemented in selected sites to increase resilience of vulnerable communities	2.2 Locally-specific climate change vulnerability, risks and adaptations options are identified by local stakeholders.	The initial 2.1 was moved to 2.2; no other change since the PIF. The initial Output 2.2 was changed to 2.3.
			2.3 Ecosystem services are rehabilitated through the implementation of EbA practices (ecosystem rehabilitation, sustainable management and conservation of natural resources)	The initial 2.2 was moved to 2.3. Upon careful examination of the theory of change, initial Output 2.2 was divided into two outputs (2.3 and 2.4) to be able to measure the number of hectares of forest and rangeland rehabilitated as well as the increase in income from alternative IGAs improved and introduced by the project.
			2.4 Income is increased and maintained across seasons, through sustainable and resilient livelihoods	Upon careful examination of the theory of change, initial Output 2.2 was divided into two outputs (2.3 and 2.4) to be able to measure the number of hectares of forest and rangeland rehabilitated as well as the increase in income from alternative IGAs improved and introduced by the project.

Strengthened information base, up-scaling and knowledge on climate change adaptation are readily available for various uses.	3. Strengthened information base on EbA supports an upscaling strategy.	3.1 Project lessons and knowledge on climate change adaptation and resilient livelihoods using ecosystems captured, stored and widely disseminated among stakeholders at all levels.	3.1 Project lessons, knowledge on Climate change adaptation and resilient livelihoods using ecosystems captured, stored and widely disseminated	Outcome 3 was rephrased. Upon careful analysis of the theory of change, Outputs 3.2 and 3.3 were both merged under Output 3.1. Activities under Output 3.1 will be linked to the AKMS built in Outcome 1.
		3.2 An up-scaling strategy developed based on lessons learned and best practices gained through project implementation.		
		3.3 Project dedicated website established and linked to the relevant national and regional global networks		

Changes in the site selection since PIF:

The site selection process began during the preparation of the Project Identification Form, and followed a number of key steps, leading to the final decision and agreement as embodied in this project document. During the PIF design, a set of summary criteria was established to help guide preliminary selection. This included: level of poverty, food insecurity, exposure to climate extremes and presence of previous adaptation investments. An initial list was therefore obtained and detailed questionnaires were sent to the district administrations to gather further information on vulnerabilities, baseline investments, planned investments and capacity gaps.

When the project preparation phase began, the site selection process was relaunched in order to take into consideration the evolving priorities of the government, the change in status in some of the pre-selected district, and considerations related to feasibility, including the need to focus the project geographically in order to maximize impact. For example, while the PIF included Stone Town in Zanzibar (Unguja Island), Kondoia district in Dodoma region and Mbinga district in Ruvuma region, it was decided to forego any intervention there for the following reasons: Stone Town was removed because it was agreed to focus the project on rural areas where poverty rates are higher and alternatives fewer, and to avoid diluting the focus; Ruvuma region was removed because of remoteness and inaccessibility. Finally, rather than selecting multiple districts in one region, it was agreed to focus on one district, which would enable the implementation of activities in all three components in an integrated manner in all the sites.

The site selection process used three sets of criteria (socio-economic, ecological and feasibility) for establishing an initial long list of sites, which was then submitted to the Government of Tanzania for further consultation. Consultation was led by the Vice President’s office and input was gathered from districts and regions throughout the process, including through the provision of key data. A final round of consultations on proposed sites was held during the validation workshop. Refer to Appendix 8 of the project document for detailed selection criteria of selected sites.

A.I. Project Description. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁸ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Global environmental and/or adaptation problems

Tanzania is still considered one of the world's poorest economies (Least Developed Country), with a gross national income per capita of US\$ 920. However, the Tanzanian economy has performed strongly in recent years, recording growth of 7.3% in 2013, up from 6.9% in 2012, mostly driven by information and communications, construction, manufacturing and other services⁹. Comparatively, agriculture remains the mainstay of the economy, employing 62.1% of the workforce, but the sector is affected by infrastructure gaps and low productivity. In 2014, efforts in reaching Millennium Development Goals (MDGs) 2015 targets were successful for one out of the seven MDGs¹⁰. Targets for 2015 of one or more indicators of the other six MDGs were considered achievable in a year's time¹¹, while some indicators of MDG 1, MDG 3 and MDG 5 were considered unachievable by 2015¹².

The negative impacts of climate change and climate variability are already evident, affecting Tanzania's social, economic and physical environment¹³. In most parts of the country, observational evidences from local communities suggest changes in temperature and seasonal shifts in rainfall patterns. Intra-seasonal and inter-annual rainfall variability manifested through late rainfall onset and early rainfall cessation, increase in dry spells and shift in rainfall patterns are becoming more common in Tanzania. Like many other Least Developing Countries (LDCs), Tanzania is vulnerable to the impacts of climate change due to its low adaptive capacity and dependence on climate sensitive sectors such as agriculture, energy, livestock, health, water, fisheries, forestry, wildlife and infrastructure¹⁴. The project aims to address the rapid degradation of ecosystem services, enhanced by climate change impacts communities and their livelihoods that depend on healthy ecosystems.

Although there are numerous development and climate change adaptation projects taking place in Tanzania, there remain some significant capacity challenges as regards coordination and the identification of synergies between and among projects and sectors. As the pace of development quickens, there is also a need to develop responsive institutions that integrate lessons learned from past projects into current and future initiatives. At the local level, many Tanzanian communities lack the technical capacity, physical and financial resources to manage and cope with climate change impacts on ecosystem services. The goal of the project is to increase resilience to climate change in rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods, using an ecosystem-based adaptation approach.

Root causes and barriers

⁸ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving..

⁹ World Bank: <http://data.worldbank.org/country/tanzania> (accessed on March 8th, 2016)

¹⁰ MDG 4: Reduce Child Mortality (Country Report on the Millennium Development Goals 2014: Entering 2015 with MDG scores).

¹¹ MDG 2: Achieve universal primary education; MDG 6: Combat HIV/AIDS malaria and other disease (Proportion of children under 5 sleeping under insecticide-treated bed nets); MDG 7: Ensure environmental sustainability (Proportion of population using an improved drinking water source) (Country Report on the Millennium Development Goals 2014: Entering 2015 with MDG scores).

¹² MDG 1: Eradicate extreme poverty and hunger (Proportion of population below national basic needs poverty line; Under 5 stunted height for age below 2SD); MDG 3: Promote gender equality and empower women (Ratio of females to males in tertiary education); MDG 5: Improve maternal health (maternal mortality ratio; Proportion of births attended by skilled health personnel) (Country Report on the Millennium Development Goals 2014: Entering 2015 with MDG scores).

¹³ United Republic of Tanzania –URT (2012). National Climate Change Strategy, Vice President's Office, URT

¹⁴ United Republic of Tanzania –URT (2014). State of the Environment Report, Vice President's Office, URT

Root causes:

Rapid population growth and poverty – Tanzania population is rapidly growing, increasing from 12.3 million people in 1967 to 44.9 million people in 2012 with almost doubling between 1988 and 2012 human population census¹⁵. About 34% of Tanzanians live below poverty line¹⁶. Poverty rates are highest in rural areas (where 74% of Tanzanian people live) and the majority of the poor Tanzanians rely heavily on biodiversity (natural resources) on their daily activities such as farming (using slash-and-burn shifting cultivation techniques), livestock keeping (grazing), firewood collection and charcoal making. Most of these activities are conducted in forested areas and go hand-in-hand with deforestation and forest degradation, thus a major threat to the country's biodiversity.

Apart from heavy reliance on biodiversity resources, the increasing population also requires more land for various uses and land is no longer allowed to lay fallow in most parts of Tanzania. As a result land is exposed to agents of soil erosion and constant loss of biodiversity. Encroachment into different protected areas is also becoming common. For instance, the Pugu-Kazimzumbwi Forest Reserve bordering the Dar es Salaam City is almost gone. Therefore, high dependence on natural resources has led to unsustainable exploitation of forest and wetland resources, and over-exploitation of wildlife species in different parts of the country.

It is estimated that, between 1990 and 2000, Tanzania lost an average of 412,300 ha of forest cover per year. Recent studies by Tanzania Forest Services Agency (TFS) show that Tanzania loses about 400,000 ha of forest cover per year. The impact of deforestation and forest degradation are loss of biodiversity due to land clearance and economic loss (poverty and unemployment) associated with unreliable power supply and this has been estimated at about US\$330 million for 2006 representing about 2 percent of GDP.

Political and social instability in neighboring countries – Since 1994, Tanzania experienced an influx of refugees from neighbouring countries of Rwanda, Burundi and the Democratic Republic of Congo. The influxes of refugees caused deforestation and other environmental degradation in and around refugee camp sites in Katumba, Mishamo, Ulyankuru, Mtabila and Mwese in North-western Tanzania (in Kigoma, Tabora and Kagera Regions). More than 50% of the Ulyankuru Forest Reserve is cleared to allow establishment of the refugee settlement and camps.

Land tenure – In Tanzania land is classified as: (1) reserved land; (2) village land; and (3) general land¹⁷. Deforestation and loss of biodiversity in Tanzania occurs mostly in non-reserved forested land¹⁸. Forest resources in the unreserved or general lands and the biodiversity therein (57% of the Tanzanian land) are open access resources due to unclear ownership and absence of security of tenure and formal user rights (poorly defined property rights). As a result, forest resources in the general lands are under constant pressure for conversion to other competing land uses such as agriculture (mainly shifting cultivation characterized by slash-and-burn), free-range livestock grazing, settlements and repeated forest fires. Reserved land includes statutorily protected or designated land such as national parks, land for public utilities, wildlife reserves and land classified as —hazardous, which designates land whose development would pose a hazard to the environment (e.g., river banks, mangrove swamps). Village land includes registered village land, land demarcated and agreed to as village land by relevant village councils, and land (other than reserved land) that villages have been occupying and using as village land for 12 or more years (including pastoral uses) under customary law. All other land is classified as general land.

Culture and beliefs – Some of the environmental problems in Tanzania are caused by some cultural beliefs of pastoral and peasant farming communities in the country. For instance, keeping large herds of cattle is often a prestige among the Sukuma, Maasai and Barbaig communities without considering the carrying capacity of grazing land. Under this culture, land is viewed as open access and the herdsmen move with their herds of cattle from one place to another in search of pasture and water. In many places, free movement of agro-pastoralists has resulted into massive degradation of wetlands and deforestation.

¹⁵ United Republic of Tanzania-URT (2012). Poverty and Human Development Report 2011, Ministry of Finance, URT

¹⁶ Poverty and Human Development Report 2011. Research on Poverty Alleviation (REPOA), Dar es Salaam, Tanzania

¹⁷ The Land Act No. 4 of 1999, United Republic of Tanzania

¹⁸ United Republic of Tanzania –URT (2014). State of the Environment Report, Vice President' s Office , URT

Regarding setting of wildfires, some people in Tanzania believe that if one sets a wildfire that ends up burning a long distance it provides an indication that that person will live a long life. Apart from cultural beliefs, majority of rural peasants in Tanzania also set fires to clear farmlands (e.g. in miombo ecosystems and coastal forest mosaic), to facilitate animal hunting, as well as to eradicate tsetse flies and ticks, or to induce growth of fresh grass in rangelands (prescribed burning). On average about 11 million hectares of forests are burnt annually in Tanzania (i.e. between 9%-12.9% of Tanzania's land area)¹⁹. About 75% of annual fires occur in Western Tanzania particularly in Miombo dominated regions such Kigoma, Tabora, Mbeya and Rukwa Regions. Observations over time have shown that fires occur sporadically in Morogoro, Lindi, Pwani, Mtwara, Ruvuma and Tanga Regions, thereby causing massive death of slow moving organisms, exposes land to various agents of land degradation and loss of biodiversity²⁰.

Barriers:

Incomplete technical & institutional capacity Despite the existence of policies and laws governing natural resource management (biodiversity conservation), there are some shortcomings in the capacity of the government to curb encroachment and illegal activities, partly due to inadequate human and financial resources as well as poor governance (corruption, lack of accountability, lack of transparency, limited engagement of stakeholders). In addition, while there is growing capacity at central level to understand vulnerability and to integrate climate change in policies, this capacity has yet to be transferred to local government and their jurisdictions. Local governments and local institutions also lack the technical capacities and tools to identify viable options for building local resilience through participatory mechanisms. Finally, there is a growing challenge in identifying and coordinating the various adaptation-related initiatives and in creating iterative progress where the successes of past programs can effectively be upscaled. Information that could be a valuable part of iterative planning is dispersed, and the relevant stakeholders cannot readily access it. This represents a missed opportunity for qualitative jumps and for learning from adaptation lessons learned. There is no way to identify best practices and to systematize methods and approaches for resilience building at the local level.

Low investment in ecosystem services – many of the growing number of adaptation initiatives focus on single sector interventions, promoting solutions designed to relieve partial effects of climate change, such as drought and rainfall variability, or low agricultural productivity. To date, there has not yet been any documented and systematic approach to investing in ecosystem-based adaptation, which represents a most appropriate adaptation strategy for the rural areas of Tanzania. Failure to restore and maintain the ecosystem services that are at the basis of rural livelihoods will lead to continued unsustainable development and piecemeal approaches. There is therefore a need to complement the traditional approaches to adaptation with an effort to address environmental degradation as a primary objective. This will enable local communities to take control of the way they use their own natural resources and to identify development incentives that allow them to build their own resilience, rather than a reactive approach to development.

Incomplete knowledge management systems for adaptation – while Tanzania has benefitted and continues to benefit from strong national and international support for adaptation and climate change issues, the information base that should support decision making remains concentrated within the hands of a few stakeholders and within a few key sectors. Despite the number of potential success stories from past and ongoing projects, many adaptation initiatives seem to be replicating the approaches and errors of the past. There is a dire need to create a forum or system whereby all adaptation stakeholders can share, debate and access information related to adaptation programming in the country. This begins with a knowledge management system to support decision making at all levels, and serves as a key mechanism for the replication and upscaling of the sound approaches identified. Awareness, knowledge and technical capacity among the local actors, and in particular local governments, is crucial in this respect.

2) Baseline scenario or any associated baseline projects

Baseline Scenario

¹⁹ TFS (2013).

²⁰ United Republic of Tanzania –URT (2014). State of the Environment Report, Vice President' s Office , URT

- Simanjiro District

About 83% of the population in Simanjiro is engaged in both crop production and livestock keeping. Only 11% of the population in Simanjiro constitutes the pure pastoralist group²¹. Crop failures and massive deaths of livestock have become common phenomena during the extreme dry years. Introduction of drought-resistant crops such as sunflower, pigeon peas, and onions are in the increase in Simanjiro. Similarly, irrigation has been seen as one of the effective means of increasing food and cash crop production to curb food shortage and fight poverty in Simanjiro. Although the irrigation development level is still very low, Simanjiro has ear-marked about 5,416 hectares as potential area for small-scale irrigation in some wards such as Msitu wa Tembo, Shambarai, Lemkuna, Kiruani, Nomeuti, Loiborsoit, Ruvu Remit, Gunge and Ngage where some peasants are already cultivating some crops such as cassava, onions, water melons, rice, tomatoes and vegetables. To cope with increasingly livestock diseases such as trypanosomiasis, anthrax, black quarter, foot and mouth disease and Newcastle disease, annual vaccinations of livestock are mostly encouraged in Simanjiro to sustain vulnerable stocks especially the young animals.

About 36% of the land in Simanjiro District is degraded. Soil erosion with large gullies dominates some areas as a result of tree cutting for timber, charcoal, firewood and building poles. If left unchecked a large part of land in Simanjiro will fail to accommodate most of the land uses supporting the survival of the rural people in Simanjiro. Participatory conservation measures are also required to sustain functioning of the Lalatema village forest reserve (15,000 hectares), which is managed jointly by six villages, namely; Msitu wa Tembo, Kiruani, Magadini, Olchoronyori, Lengast, and Kambi ya Chokaa. If well protected, ecosystem goods and services from the Lalatema forests (e.g. beekeeping, medicine, fruits, etc) will sustain livelihood of the surrounding six villages in a changing climate. Already production of honey and beeswax production in Simanjiro District (about 2.894 tons for 2009 to 2013) is contributing to the households and district incomes. Generally, in order to improve honey production in Simanjiro and obtain many other ecosystem goods and services, supports is needed to improve extension services to beekeepers, improve their marketing network and learn modern beekeeping techniques.

Apart from the forests, Simanjiro is among the six districts that form the “Maasai Steppe-proper” of northern Tanzania. The Maasai steppe is located in Northern Tanzania and falls within an eastern limb of the East African rift valley and includes Tarangire and Lake Manyara National Parks, and the surrounding dispersion areas used by migratory wildlife. The area is dominated by Acacia and Commiphora species and contains the second-largest population of migratory wild ungulates in East Africa (after only the Serengeti-Mara system) as well as the largest population of elephants in northern Tanzania. During the wet seasons, the Simanjiro plains (in the eastern part of the district) are one of the most important distribution and calving areas for wildebeest and zebra in Northern Tanzania. It is the endurance of these wildlife movements across the wider landscape that gives northern Tanzania its unique character as one vast and interconnected set of ecosystems and wildlife ranges.

The livelihoods of majority of people in Simanjiro district depend on existence of healthy and functioning ecosystems. Irrigation options require effective management of watersheds. Integrated conservation and development planning in Simanjiro landscape will help to sustain biodiversity and livelihoods through ecosystem goods and services.

- Kishapu District

Kishapu District is situated in semi-arid areas experiencing annual crop failures and massive death of livestock due to extreme and persistent droughts. As a drought-devastated district, Kishapu is a food insecure district with less access to adequate and quality water for people and their livestock²². For more than 15 years, Kishapu District has been yearly receiving food aid packages from the government and other developmental partners²³. As short term-measure, people in Kishapu are forced to dig water holes along the seasonal rivers to obtain water for domestic use and for their livestock. Otherwise, as a relatively permanent solution, agro-pastoralists from Kishapu, similar to other drought-hit areas, are migrating from their areas into areas with pastures and adequate permanent water (e.g. lake shores wetlands, River basins, and other wetland areas). Some of the adaptation measures underway at the district level include construction of rainwater harvesting structures (e.g. charco dam at Lunguya village), establishment of irrigation schemes (e.g. at Itilima

²¹ Simanjiro District Socio-Economic Profile

²² Kishapu District Socio-Economic Profile, 2013

²³ Rapid Vulnerability Assessment Report on Food Shortage Areas in Tanzania, 2009, MNRT

and Nyenze irrigation schemes), and construction of pumped water schemes (e.g. at Mwamadulu, Bubinza, Mwamashima, Mwigumbi villages).

Kishapu District is among the highly degraded lands in semi-arid areas of Tanzania (96%). Historically, due to tse tse infestation in Sukuma area (where Kishapu District belong), Sukuma people (agro-pastoralists) were forced to clear trees as a control measure. With time, most areas remained without trees, a situation that led to a decline of the natural resource base (e.g. decreased biodiversity, soil and water quality); more rapid runoff and hence sedimentation of rivers; and lower productivity, increased rural poverty and vulnerability and further land-use pressures. Some patches of wooded grassland, wooded bush land, bushed grassland and woodlands dominated by trees such as *Terminalia catappa*, *Acacia*, *Balanites aegyptiaca*, *Senna siamea* are protected using indigenous and local knowledge, known as Ngitiri. Access and use to reserved areas (ngitiri) is governed by local institutions such as clan and/or village elders. It is from these protected patches people in Kishapu obtain a number of ecosystem goods and services, especially honey, medicine and pods for their livestock during the dry seasons.

Today, Kishapu district is food insecure, which is partly due to climate change and ecosystem degradation. To secure both livelihood and ecosystem management in Kishapu, integrated conservation and development measures are required.

- Mvomero District

Mvomero is one of the seven districts in Morogoro region. The economy and livelihood heavily depends on climate-sensitive sectors (e.g. crop production, livestock keeping, fishing, and forestry). At different times, production of both food crops (e.g. maize, paddy, cassava and sorghum) and cash crops (e.g. sugarcane, coffee, cotton and oil seeds) have been negatively affected by droughts and/or floods in Mvomero district. More than 80% of adult population in Mvomero earns their livelihood from agriculture. The Government of Tanzania through the Mvomero District Council are assisting people to cope and adapt to the impact of climate change by constructing irrigation schemes (e.g. Mgeta, Ndole, Dihombi irrigation schemes), constructing of gravity and pumped water facilities (e.g. at Doma, Kigugu, Kwadoli, Mlali-Kipera, Bumu, Bunduki villages) as well as rehabilitation and expansion of pumped water schemes (e.g. at Kambala, Melela and Hoza-Salawe villages). Other measures include strengthening agricultural extension services (farming and livestock keeping), and supporting intensive mechanised agriculture in order to discourage extensive slash and burn farming system. About 56% of land in Mvomero district is degraded. The remaining forests and woodlands in Mvomero district are estimated to cover about 447,388 hectares.

- Mpwapwa District

Crop failure due to extreme droughts is a common phenomenon in Mpwapwa district. Persistent droughts have made Mpwapwa one of the most food insecure areas in Tanzania. To cope and adapt to the changing climate, already farmers in Mpwapwa are engaged in irrigation farming systems and planting drought-resistant crops (e.g. sunflower and sorghum). At the district level, some of the adaptation measures implemented so far include: improved agricultural extension services (farming and livestock keeping), integrated pest management, environmental conservation, construction of irrigation infrastructure, and use of improved drought and pest resistant seeds. The challenge posed so far by irrigation in Mpwapwa is severe leaching and laterisation in some irrigated sites²⁴.

About 43% of land in Mpwapwa District is degraded. Being a semi-arid area characterized by crop failure (as a result of extreme droughts), pressure on wetlands found in Mpwapwa has also increased. The high dependence of people on wetland-based livelihood options is a potential danger for the wetlands in Mpwapwa to become extinct in the near future²⁵. To a large extent, livelihoods in Mpwapwa District depend on rain-fed agriculture and on wetland-based activities (small-scale irrigation and fishing). In other words, wetlands in Mpwapwa district are contributing greatly to the livelihood of the rural poor in the district. Wetlands in different parts of the district have been used in high value crop production, as sources of fodder for livestock, water for domestic purposes and many other uses. Even during the drought years, wetlands-based livelihood activities are supplementing dryland sunflower and sorghum farming.

²⁴ Makoi, H.J.R.J. (2014). Selected Soil Chemical Properties and Fertility Assessment in Some Traditional Irrigation Schemes of the Mpwapwa District, Tanzania. *Journal of Experimental Agriculture*, 4(5): 584-600, 2014

²⁵ Shemdoe R.S., Kingazi S.P., Kitula R. and Chaggu E.J (2007). Reducing Stresses on Wetland Resources in Dryland Ecosystems of Mpwapwa District, Central Tanzania: Where Do We Start? *Journal of Sustainable Development in Africa* 9, No.1, 2007.

- Zanzibar (Unguja island)

Kaskazini-A Shehia, Kaskazini-Unguja, Unguja Island (Zanzibar)

Most of the economic sectors in Zanzibar's two islands are already affected by the climatic variability and change. For instance, the agriculture sector is rain-fed and dominated by small-scale subsistence farming using poor technologies. To cope with the changing climate (incidence of seasonal rainfall shifts), most peasants are already practicing intercropping system by planting both annual and permanent crops and irrigation system. Supported by the Government of Zanzibar, large-scale irrigation systems are increasingly been promoted in Zanzibar. The potential land for irrigation in Zanzibar is about 8,521 ha²⁶. Currently less than 700 ha are under irrigation. Irrigation development is constrained low efficiency of schemes due to improper canal construction and poor water management. So far paddy is the major irrigated crop. There are a few farmers who grow vegetables and fruits under irrigation system. To date, groundwater is the main source of water for both agriculture and domestic consumption in Zanzibar. There are only a few natural rivers and ponds, which also get completely dry during the dry season.

Zanzibar is not immune from land degradation and other negative impacts affecting sustainability of healthy and functioning ecosystems. Key environmental problems in Zanzibar include poor fishing and agricultural practices, deforestation, encroachment into water catchments and poor drainage systems. Agriculture is the mainstay of Zanzibar economy, contributing about 21% of the GDP. Already climatic and non-climatic stressors have been significantly affecting the agriculture sector and local communities in Zanzibar. For instance, clove farmers were particularly affected with the farm gate price of cloves falling from Tshs 3,500 per kilogram to Tshs 1,200 per kilogram in the year 2002. In 2003 Zanzibar also suffered a decline in tourism arrivals leading to over 1000 formal sector jobs being lost and large number of people engaged in casual tourist related activities facing a significant reduction in income.

Associated Baseline Projects

The proposed project will build on the ongoing activities of the two selected baseline programs described below.

The first baseline program is the Second **Agricultural Sector Development Programme** - (ASDP-2, \$US 35 million; World Bank: 2016-2021), which is the second phase to ASDP, which ended in 2013-14 (180.9 million US\$, seven years over 2006-2013). The first phase was set out through the Agricultural Sector Development Strategy and included the following objectives: i) to enable farmers to have better access to and use of agricultural knowledge, technologies, marketing systems and infrastructure, all of which contribute to higher productivity, profitability, and farm incomes and ii) to promote private investment based on an improved regulatory and policy environment. The ASDP's interventions involved building capacity of both farmers and institutions: on the one hand, it aimed to improve farmers' capacity to articulate demand for agricultural services and to build partnerships with service providers, on the other hand, to improve capacity of public and private agricultural service providers to farmers. The ASDP had activities in each district and focused on empowering local government and communities to control their planning processes and create an enabling environment for private sector investment in agriculture.²⁷

The ASDP-2 aims to implement activities to reach Tanzania's Vision 2025 through a wider coordination framework to involve more agricultural sector development initiatives than in the first phase, with its broad goals including: food and nutrition security, commercialization, trade, growth, agriculture extension services, gender equality and women's empowerment, youth employment and environmental protection. Learning from ASDP-1, specific objectives of ASDP-2 will include strengthening farmer organizations, developing market and productive infrastructures, supporting agribusinesses linked to farmer organizations, and disseminating technologies. Finally, ASDP-2 will focus on fewer districts, it will also target a selection of prioritized commodities (rice, maize, oil seeds namely sunflower and sesame, sugarcane and horticultural crops) in order to increase their productivity and enhance farmers' access to agricultural inputs and financial services.²⁸

²⁶ Revolutionary Government of Zanzibar (2003). Zanzibar Poverty Reduction Plan

²⁷ MALF Annual Report 2014-2015

²⁸ MALF, Agriculture Climate Resilience Plan ACRP, 2014-2019 (September 2014)

Although ASDP-1 and ASDP-2 both aim at increasing productivity, profitability and farm incomes of the vulnerable Tanzanian population, it does not take into account future impacts of climate change, nor does it enhance coordination over best practices between projects. It also does not fully consider the impact of agriculture on ecosystem services, or vice versa, the need to restore and maintain ecosystem services to ensure resilient agricultural income. This proposed LDCF project will add a resilient and sustainable aspect to the ASDP-2 by supporting the implementation of locally-specific climate change vulnerability, risks and adaptation options identified by local stakeholders, thus engaging them to increase their income, enhancing their food security by also maintaining ecosystem services and fostering sustainable development. An Adaptation Knowledge Management System (AKMS) will enable the government and other stakeholders to share information on adaptation, vulnerability, projects and technologies using an online platform and a GIS-based system. Climate-smart agricultural practices will also be promoted, such as minimum tillage to reduce soil erosion and direct seeding and mulching to maintain soil cover and promote better ecosystem services.

Current and upcoming ASDP activities in each selected district vary, as they are based on local demand and local plans, but are framed within a set of guidelines based on the overarching objective, which is mainly to improve agricultural productivity. A survey was conducted in each district asking for the list of activities already implemented or to be implemented under the ASDP. Table 2 shows at a quick glance of what activities are done in each district, based on summarized categories. Priorities vary from one district to another, but in general, ASDP-supported activities can be grouped in 10 categories, as below:

1. *Construction, rehabilitation and installation of irrigation schemes*: construction or rehabilitation of irrigation intakes, headworks, lining canals, installation of hydraulic structures, charcoal dams, drip irrigation, reservoir dams; development of irrigation; establishment of block farms by using drip irrigation.
2. *Construction, rehabilitation and stabilization of agricultural market places*: construction or rehabilitation of warehouses, markets, slaughter slabs, abattoirs, crop storage structures, grain banks, feeder roads.
3. *Improvement of cropping practices*: increase of crop production; purchase of tractors, threshing machines, power tillers; management of plantations (e.g. cashew); procurement of modern farming implements; control of pests and insects; distribution of pesticides; facilitation of participatory crop research.
4. *Facilitation of access to Quality Declared Seeds (QDS)*: seed distribution, multiplication (e.g. sorghum, coffee, beans, and sunflower).
5. *Procurement of value adding equipment and infrastructure*: purchase and installation of pulping units, grain processing machines, cultivators and sorghum shelling machines; facilitation of technology transfer and quality control on hides and skins; establishment of processing plants; improvement of post-harvest practices in agro processing and proper crops marketing.
6. *Improvement of livestock breeds and husbandry*: increase of animal products production (milk, egg, cattle); decrease of livestock deaths; facilitation of genetic improvement; insemination of indigenous cattle and poultry using AI or breeding bulls; purchase of Heifers; construction of dip tanks, poultry houses, shade shelters; improvement of cow, bull, dairy goats and chicken breeds; vaccination of animals against diseases; access to new technologies; construction of veterinary centers.
7. *Facilitation of training and capacity-building*: improvement of knowledge and skills of staff; facilitation of training to farmers and livestock keepers; strengthening of Water User Association (WUA); training for farmers on conservation agriculture; training on improved agricultural practices; establishment of Farmers and Livestock Field Schools; training of irrigators to practice their farming according to the National Comprehensive Irrigation Development guideline; establishment of agriculture and marketing cooperative societies (AMCOS); empowerment of agriculture projects implementation committees.
8. *Diversification of local economies*: promotion of bee keeping; fish farming and sustainable fisheries.
9. *Promotion of sustainable environmental management*: tree planting; soil and water conservation.
10. *ASDP support services and extension services*: facilitation of agriculture service delivery; monitoring and evaluation of projects; facilitation of budget preparation; purchase of motorcycles; improvement of working environment by ensuring housing, transport facilities, fuel and working gears and tools to field staff; construction or rehabilitation of ward resource centers (WARC); maintenance services to vehicles; implementation of Agriculture Routine Data System (ARDS); facilitation of participation to agricultural shows.

In Zanzibar, the ASDP is run under a different name, namely: the Zanzibar Agricultural Transformation for Sustainable

Development, however, the main activities are the same, therefore they are categorized in the table below.

Table 2: Current And Upcoming Asdp Activities In Each District²⁹

Activities	Mvomero	Mpwapwa	Kishapu	Simanjiro	Kaskazini Unguja, Zanzibar
1. Construct, rehabilitate and install irrigation schemes	X	X	X	X	X
2. Construct, rehabilitate and secure agricultural market places	X	X	X	X	X
3. Improve cropping practices	X	X		X	
4. Facilitate access to QDS	X	X		X	X
5. Procure value adding equipment and infrastructure		X	X	X	X
6. Improve livestock breeds and husbandary	X	X		X	X
7. Provide training and facilitate capacity-building	X	X	X	X	X
8. Diversify local economies		X			
9. Promote sustainable environmental management		X			
10. ASDP Support services and extension services	X	X			

The second baseline program is the **Water Sector Development Programme** (WSDP, 2006-2025, funded by development partners and the Government of Tanzania, with a total of \$US 3,366.38 million over 2006-2025; 889,720,000 \$US for the 2016-2020 period). The WSDP, which enters its second phase in 2016, aims at “supporting the Government of Tanzania’s poverty alleviation strategy through improvements in the governance of water resources management and the sustainable delivery of water supply and sanitation services”. The WSDP is implemented by several institutions, namely, the Ministry of Water, the Ministry of Health and Social Welfare, the Ministry of Education and Vocational Training, the Prime Minister’s Office, Regional Administration and Local Government as well as other implementing agencies, such as Water Basin Offices, urban water supply and sanitation authorities and local government authorities (LGAs).

While the WSDP focuses on the sustainable delivery of water supply and sanitation services, providing water management capacity building at basin level, it does not include climate change risk management in its approaches, nor does it support a resilience-based approach or considers the role of ecosystem services in the provisioning and conserving of water. As a result, the Water Basin authorities, as well as local water users, are not well equipped for making decisions under a climate change scenario. The proposed project will train key local stakeholders on adapting

²⁹ Based on consultations during project preparation. Subject to change depending on evolving priorities at district level, and based on available financing.

communities to climate change using ecosystem-based adaptation approaches. More specifically, the proposed project will complement and extend water supply for crop production and livestock through water conservation technologies in order to support communities to become more productive thanks to the promotion of alternative livelihood income-generating strategies.

In each district, the main WSDP activities are related to the improvement of water infrastructure³⁰:

- In Mvomero, the WSDP supports the construction, rehabilitation and expansion of pumped and gravity water schemes.
- In Mpwapwa, WSDP will support the construction of water supply projects, such as boreholes, wells.
- In Kishapu, the program will support construction and rehabilitation of pumped and piped water schemes and also rehabilitates and installs hand pumps to deep wells and shallow wells.
- In Simanjiro, WSDP will drill boreholes and distribute water in villages.
- In Zanzibar, In Zanzibar, the WSDP is run under a different name, namely: the Zanzibar Water Authority Strategic Plan. The program will support the establishment of water meters; the identification/development of new water sources; the extension and replacement of pipelines, worn pumps and electrical fittings; and the protection of water sources in urban areas.

The implementation of the WSDP currently depends on a business-as-usual water balance scenario. The WSDP planned investments do not currently take into consideration the possible impacts of climate change. These increased incidences of climate change hazards including increased temperatures, drought, delayed onset of the rainy season and flooding are expected to place more pressure on water resources and water availability.

3) Proposed alternative scenario, GEF focal area³¹ strategies, with a brief description of expected outcomes and components of the project

The proposed project is aligned with GEF Focal Area/LDCF/SCCF strategies.³² Particularly, the following “Focal Area Objectives” are addressed in the proposed project:

CCA -1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change. The project contributes to both outcome 1.1 on reduced vulnerability of physical assets and natural systems, as well as outcome 1.2 on diversification of livelihoods and sources of income. This will be mostly achieved through Component 2.

CCA-2: Increased awareness of climate change impacts, vulnerability and adaptation. This project contributes to outcome 2.3 on the strengthening of institutional and technical capacities and human skills to identify, prioritize, implement, monitor and evaluation adaptation strategies. This will be achieved through Components 1 and 3.

The project *objective* is to increase resilience to climate change in rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods. It contributes to the overarching *goal* of reducing the vulnerability of rural populations.

The project will target 29,361 direct beneficiaries, equivalent to 2% of the selected districts’ population. Direct beneficiaries are defined as the participants in the project funded activities, such as sustainable and resilient livelihoods and reforestation activities.

³⁰ Id.

³¹ For biodiversity projects, in addition to explaining the project’s consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving..

³² GEF Programming Strategy on Adaptation to Climate Change for LDCF and SCCF (GEF/LDCF.SCCF.16/03/Rev.01, May 2014)

The project will seek to achieve its objective through four interlinked outcomes and eight outputs. The GEF funded interventions will complement the baseline interventions (described in Section 2.6) deployed by the ASDP and the WSDP in the targeted regions by addressing key barriers to resilience, such as the degradation of the ecological services at the basis of production, and the limited opportunities for sustainable local growth.

Outcome 1: Improved stakeholders capacity to adapt to climate change through EbA approaches and to undertake resilience-building responses.

There is increasing institutional and individual capacity to plan adaptation-related initiatives among key central-level stakeholders, such as PMO, VPO and the sectoral ministries. Over the past few years, these stakeholders have been involved in the development and management of a growing number of adaptation related activities. However, only a few of these activities concerned ecosystem-based adaptation, an adaptation strategy that is very promising for Tanzania, given the continued economic reliance on natural resources. In order to continue building the capacity of the Tanzania government to plan, manage and evaluate adaptation progress in the country, a few key actions are required. These concern notably the coordination and understanding of adaptation results throughout the country, the development of shared knowledge management systems that will enable the government at all levels to undertake iterative planning, and the dissemination of ecosystem-based adaptation tools and methodologies to a broader set of stakeholders nationally and locally.

Output 1.1 A GIS-based adaptation knowledge management system (AKMS) on climate change adaptation is operationalized.

Under this output, the GEF funds would support the development of a much needed adaptation knowledge management system (AKMS) that will serve as a tool for planning future adaptation initiatives. This knowledge system will enable the government and other stakeholders to share information on adaptation, vulnerability, projects and technologies using an online platform and a GIS-based system. On one hand, this will enable stronger coordination among the various sectors and institutional actors, and a more systematic identification of gaps and needs in terms of resilience and adaptation. At the same time, the knowledge system will serve as a gateway for sharing knowledge and best practices on adaptation planning, programming, including technological successes that are applicable elsewhere in the country. The platform would build on existing networks, such as Adaptationlearning.net, the Climate Technology Center and Network (CTCN), and the IW-learn platform, but will add a GIS mapping component in order to be able to represent visually the various aspects of adaptation programming and vulnerability in different regions.

In order to achieve this result, the project will support the formation of a cross-sectoral and multi-stakeholder group or steering committee who will be tasked with steering the development and maintenance of the platform. These stakeholders, who will include government, non-government, private sector, the research and academic community and development partners, will participate in the definition and design of the platform structure through a first needs assessment and stocktaking (linked to the NAP process). Experience from national institutions in creating similar platforms, such as those set up by the Tanzania Organic Agriculture Movement, for example, will be integrated into the new AKMS. The AKMS will make use of all new ICTs and will provide online access to resources including documents, data, maps and GIS-based information, as well as case studies, blogs and links. Support from all stakeholders in creating and populating the knowledge system will be enlisted on the basis of voluntary contributions. Data submission and access will be made open to all stakeholders, but a quality assurance function will be established within the steering committee, to ensure harmonization. During the project, GEF funds will support the identification of information and data relevant to the AKMS from all sources, including academic sources, which will be compiled through annual reports and recommendations on adaptation planning and programming. For example, each year, the annual reports could include case studies as well as recommendations on upcoming gaps, opportunities for upscaling good practices, and a list of ongoing projects, programs and policies. The project will also support the initial operating costs and meetings of the AKMS steering committee. At the end of the project, the VPO will integrate the management of the AKMS and its steering committee within its regular budget allocations, in order to ensure its continued relevance. Furthermore, the VPO will endeavour to link the AKMS to other regional and global level networks, to promote South-

South Cooperation and the exchange of best practices. For example, the AKMS may feed into the South-South exchanges foreseen under the Regional Integrated Approach Program for Food Security, financed by the GEF, and which has a regional hub project, to which Tanzania is participating.

Output 1.2 Training and guidance provided to a cadre of knowledgeable resource persons on ecosystem-based adaptation.

Under this output, the project will continue to build on existing initiatives and proven project results to further build the capacity of key adaptation stakeholders on the principles, approaches and tools related to Ecosystem-based adaptation. This will begin by developing materials and tools, using existing sources of knowledge such as UNEP’s EbA Decision-Support tool that can be adapted to the Tanzania government decision-making processes. Using this material, a training of trainers will be organized to create a cadre of knowledgeable resource persons on ecosystem-based adaptation. Registration for the training will be open to civil servants in central and sectoral ministries, NGOs, as well as consultants who have worked on adaptation programs in the past, in order to build on an existing level of capacity. The project will also support a training of trainer session for staff from the VPO, who is normally in charge of coordinating all adaptation and climate change initiatives, representatives of the National Climate Change Steering Committee and working groups, climate change and disaster management focal points in all ministries, as well as staff in the National Environment Management Council. This will ensure that those who are most often called upon to plan and implement adaptation related initiatives at central level have the most recent knowledge on ecosystem-based adaptation and how it may be applied in a Tanzanian context. These newly trained stakeholders will then be able to pass on the information and training to the local level stakeholders, chief among them local government authorities, as part of activities under Outcome 2.

Table 3: Outcome, outputs, activities for Component 1

1.Improved stakeholders capacity to adapt to climate change through EbA approaches and undertake resilience building responses	1.1 A GIS-based knowledge management system on climate change adaptation that supports planning	1.1.1 Design and develop the basic structure of the knowledge management system utilizing available open source tools
		1.1.2 Form a cross-sectoral multi-stakeholder group to support the management and maintenance of the knowledge system and its use for adaptation planning
		1.1.3 Verify the data produced by the stakeholders and identify capacity gaps and opportunities for collaboration on all levels
		1.1.4 Identify currently available data in GIS format and additional data needs for planning appropriate climate change responses
		1.1.5 Provide annual recommendations on gaps and needs for adaptation planning and programming based on findings from the knowledge system
	1.2 Training and guidance provided to a cadre of knowledgeable resource persons on ecosystem-based adaptation	1.2 .1 ToT training material on ecosystem based adaptation approach developed
		1.2.2 ToT training for VPO staff, National climate change steering committee and working groups members, climate change and disaster management focal points in relevant ministries

Outcome 2 – Increased resilience in project sites through demonstration of EbA practices and improved livelihoods

The larger part of the GEF funds will be allocated to this second outcome, which is oriented towards the mobilization of concrete investments on the ground to facilitate EbA. This outcome will be delivered in close collaboration with local authorities, committees and user groups, whose capacity will also be strengthened by the project. The project will also undertake some targeted research into the vulnerability of the project sites, and the information will be linked and uploaded to the AKMS developed in Outcome 1. Vulnerability and impacts assessment conducted for each district at

the beginning of the project will then be monitored annually through participatory M&E (Outcome 3) in order to understand the reduction in vulnerability from implementing adaptation options. The investments that will be deployed will support both the restoration of ecosystem services and the deployment of more sustainable and more resilient forms of livelihoods at local level, hence reducing vulnerability of beneficiaries by 45% by the end of the project³³. This will be done on the basis of sound local knowledge and assessment.

Output 2.1 Local authorities, committees and user groups trained on adapting communities to climate change using EbA

Following up on the Training of Trainers that took place under Component 1, the project will support a training of key local stakeholders on the deployment of climate vulnerability assessments tools and techniques, including disaster risk monitoring and assessment, as well as on the principles, tools and approaches related to EbA. This training will be designed for local authorities, district administrations, local committees (ie disaster risk committees), and user groups (ie water user associations, etc). Representatives of regional administrations may also participate in the training, along with water basin organization representatives. The purpose of this broad training is to ensure that all local stakeholders have the required level of knowledge to guide communities in an EbA planning exercise, and to identify resilience-building options in the long term.

Output 2.2 Locally-specific climate change vulnerability, risks and adaptation options are identified by local stakeholders

Under this output, the project will support the deployment of a comprehensive consultative process through which local communities will identify their own vulnerabilities and the most viable adaptation options, using best available practices. First, a participatory climate change vulnerability and impacts assessment (VIA) will be conducted in each project site, using guidelines for VIA under the UNEP PROVIA program. This will assist local communities in identifying best adaptation options, according to a variety of criteria, including sustainability, resilience and inter-seasonal variability, profitability and access to markets. This will include a gender-based assessment of vulnerability, which will also inform the design of gender-specific adaptation solutions.

Simultaneously, a diagnostic and indicators of climate-change affected ecosystem services will be conducted, using tools developed by UNEP's World Conservation Monitoring Centre (WCMC), such as the Toolkit for Ecosystem Service Site-based Assessment (TESSA)³⁴, to measure ecosystem services and value nature. This diagnostic will contribute to identifying impacts of potential changes on the ecosystem services, informing locally-specific adaptation options. Information from these exercises will be submitted for integration into the AKMS, enabling the monitoring of the evolution of vulnerability in the same sites across time. This exercise will also inform the development of a map of major hazards and risks, including droughts, floods, pest and diseases, both under the baseline and the 2090 climate scenario. This will be done using information from available climate scenarios, downscaled to the local level wherever possible. Finally, this will be followed by an assessment of the physical and economic impacts of climate change on the project sites, using tried and tested methodologies, such as the Economics of Adaptation exercise that was conducted at a national level in 2009. The purpose of this last exercise is to understand the value of ecosystem services and the trade-offs involved in selecting local development options and pathways. This will also link to the 3 activities on monitoring and evaluation, as well as provide a useful basis of information on which to undertake planning in other regions, through the AKMS.

On the basis of the above assessments, communities will then develop new resilience and season-based land use and management plans (LUMPs). These LUMPs should incorporate all forms of natural resource use, including for example the exclosures and regeneration set-aside zones, as well as inter-seasonal and inter-annual rotation patterns. The LUMPs would also formalize the community-based NR management systems for rangeland and pasture, crop land, forests and water and would include the specification of resilient livelihoods elected by the communities as new or

³³ This vulnerability reduction target is set high to reach visible impact, given that the no vulnerability and impact assessments were ever conducted in these districts.

³⁴ UNEP's World Conservation Monitoring Centre (WCMC): <http://www.birdlife.org/worldwide/science/assessing-ecosystem-services-tessa>

enhanced development ventures. This will help ensure that the entire community invests the resources and shares in the benefits of increased livelihoods options (Output 2.4). During this planning process, communities will also be able to identify alternative income generating options and promising value chains that will be explored under Output 2.4.

Output 2.3 Ecosystem services are rehabilitated through the implementation of EbA practices

On the basis of agreed land use decisions and LUMPs, activities under this output will focus on the restoration of the ecosystem services main functionalities, including soil fertility and moisture conservation, carbon and nutrient cycling, protective services against floods and droughts, and water conservation. In line with the diagnostic posed during the project preparation and following an analysis of key ecosystem vulnerability, the project will support four types of ecosystem rehabilitation activities: natural regeneration of degraded lands, rangeland rehabilitation, reforestation and river bank stabilisation. Based on current knowledge, these measures are expected to provide increased soil quality, carbon sequestration in soils and biomass, increased land productivity and moisture retention, reduced erosion and risk of flooding and improved water quantity and quality. The specific details of each interventions, including for example areas selected, species used, access and management systems, will be spelled out in the district LUMPs.

Rehabilitation activities could include the establishment of exclosures and no-take zones, using a participatory approach, in degraded areas, to assist the natural regeneration of pastures, grasslands, and agricultural lands. Monitoring of the regeneration will be undertaken with communities through Outcome 3 and will include vegetative cover as well as biodiversity indicators. An estimated minimum of 50 ha could be set aside for regeneration in each project site as an initial demonstration of the speed and benefits of natural regeneration.

Furthermore, the project could support the rehabilitation of rangelands in up to 6000 hectares (500 ha per district). This would include the procurement and planting of drought resistant grasses, shrubs and trees, along with a community-based rangeland and livestock management strategy. This latter strategy would also include mechanisms to rotate grazing, activities to develop low-grazing livestock species, and activities (under output 2.4) to develop fodder making as a value chain for sedentary livestock. The project would also support the rehabilitation and reforestation of key watershed areas, in particular those that are near headwaters, river banks or sources. A estimated total of 3000 ha could be reforested (500 ha pr district) using local endemic species that have proven to have a good drought tolerance and whose water needs are low. Finally, riverbank rehabilitation and anti-erosion measures will also be implemented through the project as a means to restore the protective ecosystem services along an estimated 200 hectares in targeted districts.

Output 2.4 Income is increased and maintained across seasons, through sustainable and resilient livelihoods

On the basis of plans developed under Output 2.3, the project will seek to support an increase in crop production through the implementation climate smart agricultural practices. This will include minimum tillage to reduce soil erosion, conservation agriculture and land preparation techniques, direct seeding, mulching, maintenance of soil cover, and crop rotation, to name a few. It will also include water harvesting, sand dams, conservation-based irrigation techniques, cattle troughs and other available technologies to increase water availability for crop production and livestock, which has thus far been a significant barrier to development in the area. This will help support communities in becoming more productive while maintaining the ecosystem services and production base. Crop diversification will also be encouraged, including through the use of household gardens, to ensure continued supply of vegetables and diverse nutrition. In the livestock sector, the project will also support agro-pastoral communities in implementing strategies designed to increase the productivity of rangelands and cattle. This will include training on herd management, breeding and health practices (in conjunction with local extension services), as well as rangeland rehabilitation and management, feedlots and hay making.

In parallel with the efforts on cropping and livestock, the project will also introduce or strengthen alternative income generation mechanisms for vulnerable groups, particularly women. This will be based on the consultations foreseen under Outcome 1 and under the LUMPs, as well as on the repository of tested best practices in Tanzania that would be integrated in the AKMS. The project will support training for local government authorities, extension services,

communities and producer groups on various income generating activities and value-chains, as well as provide required inputs and seed funding to launch any new ventures. Market analyses will also be conducted in order to support the value chains and to ensure their long-term economic feasibility and viability.

Specific income generating activities include, but may not be limited to, the following:

- Strengthening of the livestock value chain: encouraging meat processing (e.g. drying, salting), hide processing and marketing, milk processing, egg production, piggeries and raising of small stocks (chickens, goats). The project would work through local NGOs and CBOs to identify producer groups, provide training and initial start up inputs, and to support business management skills.
- Piloting Efficient Charcoal production :The project would work with local communities and interested producer groups to set up efficient charcoal production systems. This will include setting aside land for soft-wood woodlots, creation of nurseries for continued plantation, efficient charcoal making techniques to reduce losses, as well as the promotion of sustainable wood harvesting such as coppicing, and the production and marketing of efficient cooking stoves.
- Strengthening the beekeeping value chain: The project would build on ongoing experience and local expertise to create and support producing groups for bees, honey and wax products, including technical training, provision of safety and production inputs and equipments, support for packaging and marketing.
- Piloting other non-timber forest product value chains: On the basis of lessons learned in other areas, and based on voluntary engagement by local producer groups and associations, the project would support the production of aloe (e.g. for soap making), pharmaco-cosmetic products (e.g. incense, dyes, fragrances, natural medicine), and fabrics (e.g. from sisal). For these, technical and market-based feasibility studies would be performed before engaging with local communities to ensure low risk and economic viability of these ventures.

In order to further support the efforts under output 2.3 and 2.4, the project will also seek to reduce deforestation. In order to create incentives for the maintenance of forest and vegetative cover, and in the absence of any immediate progress in terms of rural electrification, the project will support the introduction of efficient cooking stoves and efficient charcoal production and, where feasible, the production of biogas. This will ensure that wood that is harvested for fuel is maximized, while creating mechanisms to protect larger areas of forest cover, and enabling communities to keep their energy making potential. The sustainable charcoal value chain will be strengthened in collaboration with established producer groups, particularly youth groups, using for example existing tree nurseries and land set asides to establish forest reserves dedicated to local charcoal production.

Table 4: Component 2 outcomes, outputs, activities

2. Increased resilience in project sites through demonstration of EBA practices and improved livelihoods	2.1 Local authorities, committees and user groups trained on adapting communities to climate change using EbA.	2.1.1 Training (ToT) on climate change vulnerability assessment (including disaster risk) and EbA/adaptation planning for local authorities, committees and user groups
	2.2 Locally-specific climate change vulnerability, risks and adaptations options are identified by local stakeholders.	2.2.1 Undertake participatory Climate Change Vulnerability Impact Assessments in project sites using guidelines for VIA under PROVIA and identify recommended adaptation actions
		2.2.2 Develop a diagnostic and indicators of climate-change affected ecosystem services, based on recognized methodologies for measuring ecosystem services such as the UNEP-WCMC ToolKit
		2.2.3: Establish a map of drought, flood, pest and diseases risk zones (baseline and climate change scenario) in selected sites and

		incorporate results to knowledge management system
		2.2.4 Assess the physical and socio-economic impacts of climate change on selected project sites and incorporate results to Output 1.2.
	2.3 Ecosystem services are rehabilitated through the implementation of EbA practices (ecosystem rehabilitation, sustainable management and conservation of natural resources)	2.3.1 Develop new, resilience and seasonality based, land use and management plans with communities
		2.3.2 Establish, through consultations with local communities, exclosure and no-take zones to support the natural regeneration of degraded areas
		2.3.3. Undertake rangeland rehabilitation in 6000 ha
		2.3.4 Undertake watershed rehabilitation and reforestation, using local species, in 3000 ha
		2.3.5 Undertake riverbank rehabilitation in degraded areas (200 ha)
	2.4 Income is increased and maintained across seasons, through sustainable and resilient livelihoods	2.4.1 Implement climate smart agricultural practices, including conservation-based irrigation, water harvesting, crop rotation, etc.
		2.4.2 Improve resilience of current livelihoods and introduce alternative, income-generating, climate resilient livelihood activities for vulnerable groups, particularly women (livestock value chain, beekeeping...)
		2.4.3 Introduce and promote efficient cooking stoves and efficient charcoal production technologies to reduce pressures on forest resources
		2.4.4 Training and support to LGAs, extension services and key producer groups on resilient livelihoods

Outcome 3 – Strengthened information base on EbA supports an upscaling strategy.

This outcome links directly to activities undertaken under Outcome 1 to set up the knowledge management system. Under this outcome, the project will support the deployment of a Monitoring and Evaluation system for the project that is integrated into the AKMS and that is designed to support the development of an upscaling strategy. This will include the documentation of best practices, the deployment of a communication strategy and an upscaling and replication plan. The project will also support local participatory monitoring of project indicators and EbA targets.

Output 3.1 Project lessons, knowledge on CCA, EbA and resilient livelihoods, are captured, stored and widely disseminated.

Under this output, the project will support the identification, together with local government authorities, of best practices and most appropriate technologies within the EbA framework. This will include the production of case studies, visual and print documentation, as well as the production of briefs to support the policy process. This activity will be linked to the deployment of a communication strategy which will see the dissemination of training and communication material to different target audiences, using various media: decision-makers at local, regional and national level, agricultural advisory services at local level, local NGOs and CBOs, and the general public. It is important that the producer groups who succeed in developing viable, profitable income generating activities be at the forefront of this effort, so as to ensure a broad dissemination of the technology. The project will work with print media, as well as radio, television and social media to ensure that the targeted audiences are reached.

In order to support this effort as well as efforts under outcomes 1 and 2, the project will deploy a participatory M&E strategy where local communities and project beneficiaries will be directly involved in the continuous monitoring of project results. This will require initial training of local groups, following which communities will be able to undertake monitoring of various project indicators, such as for example, the areas under conservation and the rate of vegetative regeneration, biodiversity indicators, productivity of crop and livestock, and income generated from resilient livelihoods. Having local communities participate in the project's M&E system helps build ownership of results and a deeper understanding of the conditions for success.

Finally, through a learning-by-doing approach, the project will provide an information basis on which to further replicate and upscale the project's successes and lessons, particularly identifying best practices and ensuring that all relevant stakeholders are involved through participatory monitoring and have increased knowledge and awareness. This will directly contribute to the project's sustainability and up-scaling strategy.

Table 5: Component 3 outcomes, outputs, activities

3. Strengthened information base on EbA supports an upscaling strategy	3.1 Project lessons, knowledge on Climate change adaptation and resilient livelihoods using ecosystems captured, stored and widely disseminated	3.1.1 Document best practises, applicable technologies, success stories to inform policies and adaptation planning, linked to the knowledge management system in Outcome 1
		3.1.2 Develop and disseminate practical and applied training and communication material for different target audiences (policy desicion makers, planning, agricultural advisory services at local level) using print, radio and social media
		3.1.3 Undertake participatory monitoring of ecosystem services, project indicators and livelihoods
		3.1.4: Develop a sustainability and upscaling strategy using lessons learned through project implementation.

4) [Additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#)

Outcome	Baseline and Gaps	GEF Alternative	Additional adaptation cost
1.Improved stakeholders capacity to adapt to climate change through EbA approaches and undertake resilience building responses	<p>There is a low institutional and technical capacity to plan and implement climate change adaptation at local level. There is also a lack of systematic integration of lessons learned through past projects and a lack of coordination between policies as well as among adaptation and development projects in Tanzania. There is also no systematic coordination among adaptation interventions in the country, making planning more ad hoc.</p> <p>None of the baseline programs provide any plan to improve knowledge on impacts of climate change, nor to provide technical capacity on ecosystems-based adaptation approaches. None of the baseline programs provide useful avenues for coordinating and strengthening the adaptation planning at central and decentralized levels.</p>	<p>LDCF financing will support the development of shared knowledge management systems that will enable the government to undertake iterative planning, and the dissemination of ecosystem-based adaptation tools and methodologies to a broader set of stakeholders nationally and locally. This knowledge system will enable the government and other stakeholders to share information on adaptation, vulnerability, projects and technologies using an online platform and a GIS-based system.</p> <p>LDCF financing will therefore add a sustainable and resilient aspect to both the ASDP and WSDP by building on existing initiatives and proven project results to further build the capacity of key adaptation stakeholders on the principles,</p>	US\$ 305,000

		approaches and tools related to Ecosystem-based adaptation.	
2. Increased resilience in project sites through demonstration of EbA practices and improved livelihoods	<p>Tanzanian ecosystems and their biodiversity are under increasing pressures due to poor agricultural practices and population pressures. In addition, the lack of economic value and knowledge about ecosystem goods and services contributes to land degradation and biodiversity loss. Poverty in Tanzania's rural communities is mainly due to the low diversity of livelihood strategies within but also beyond agriculture. For instance, the livestock sector is not contributing to livelihoods as it could, due to unsustainable and unproductive livestock keeping.</p> <p>While there are projects promoting the rehabilitation of watersheds and integrated water resources management (WSDP), as well as the improvement of agricultural extension services (ASDP), these do not systematically include future climate change impacts, nor plan their activities within EbA approaches. Isolated environmental restoration initiatives are also not supported by adequate land use plans and there is no explicit monitoring of the impacts of ecosystem services on the agricultural sector.</p>	<p>For this outcome, LDCF financing are intended to mobilize concrete investments on the ground to facilitate the implementation of EbA.</p> <p>Investments will be deployed to support both the restoration of ecosystem services and the deployment of more sustainable and more resilient forms of livelihoods at local level.</p> <p>LDCF financing will include a participatory climate change vulnerability impact assessment (VIA) which will be conducted in each project site, using guidelines for VIA under the UNEP PROVIA program. This will assist local communities in identifying best adaptation options, according to a variety of criteria, including sustainability, resilience and inter-seasonal variability, profitability and access to markets.</p>	US\$ 6,475,233
3. Strengthened information base on EbA supports an upscaling strategy	The lack of coordination among existing policies and projects is an obstacle to strengthen knowledge management and of best practices. While it is planned in the ASDP and WSDP that the secretariat liaise with other cross-sector activities to learn and disseminate good practices and lessons learned from their projects implementations, there are no plans of sharing that at the national level within an adaptation knowledge management system at the implementation and M&E stages.	LDCF financing will support the deployment of a Monitoring and Evaluation system for the project, which will be integrated into the AKMS and will be designed to support the development of an upscaling strategy, through the documentation of best practices, communications strategies and a replication and upscaling plan.	US\$ 326,000

Co-financing will be spread across different components

Co-financing by source and type

Name of Co-financier	Type	Amount in US\$
National Government: Ministry of Agriculture, Livestock and Fisheries – MALF (ASDP-2)	Grant	10,075,000
National Government: Ministry of Water and Irrigation – MWI (WSDP)	Grant	10,075,000
National Government VPO	In-kind	600,000
Total		20,750,000

Total co-financing amount by source for each component of the project:

	ASDP-2	WSDP	VPO
Component 1	255,000	255,000	70,000
Component 2	9,720,000	9,720,000	40,000
Component 3	-	-	100,000
Project Management	100,000	100,000	290,000
Monitoring & Evaluation	-	-	100,000
TOTAL	10,075,000	10,075,000	600,000

Project Cost-effectiveness

Cost-effectiveness has been a guiding principle in designing and identifying the project activities through its overall focus on an EBA approach, building on a growing body of scientific research demonstrating that past initiatives, which included EBA measures, have resulted in a greater ratio of benefit/cost compared to the use of hard infrastructural measures. For example, an economic analysis of the restoration and rehabilitation of grasslands and woodlands estimated internal rates of return of 20–60% and benefit/cost ratios of up to 35:1³⁵ for grasslands. It has been found that the more resilient ecosystem services become, the less maintenance costs and further restoration costs will be. A frequently cited example of the cost-effectiveness of EBA is an economic analysis undertaken in Lami, Fiji³⁶. This study included assessments of the costs and benefits of three approaches to watershed management: i) solely EBA measures; ii) “hard” engineering options and a hybrid approach; and iii) combining both hard engineering and EBA interventions. The analysis demonstrated that EBA watershed management options can be at least twice as cost-effective as hard engineering options – e.g. a benefit/cost ratio of US\$19.50 for EBA compared with US\$9 for hard engineering³⁷. The project has been developed based on a careful assessment of the cost effectiveness of various options selected. In particular, the project considered alternative strategies and options, within the framework of ecosystem-based approaches to adaptation, in order to maximize impact achievement. Options that were not integrated in this project’s design for reasons of cost effectiveness include the following:

- Investing in hard water infrastructure: water availability continues to be a major constraint to increased production, however the project has opted – in line with the EBA principles – to adopt softer measures for ensuring water availability. This includes the restoration of key watersheds, the promotion of water use effectiveness and the rehabilitation of soil properties, including moisture retention. Since the project is building on baseline interventions in the water sector, there was a sufficient baseline of water availability to make any further investment into the water sector beyond the cost effectiveness of this project.
- The project will also not seek to develop non-agricultural diversification. Because most communities continue to rely on agriculture for their livelihoods, and because agriculture is heavily vulnerable to climate variability, the project could have opted for an out-of agriculture diversification strategy to reduce vulnerability. However, it was determined that this would require the provision of more intense and expensive training, cultural changes, and the provision of significant production inputs, which were beyond the means of this project.
- The project has also opted to build on existing capacities and efforts from other ongoing projects, and to avoid duplication. The project will therefore rely on existing capacity within the Tanzanian government, particularly among MALF and VPO staff, to train and transfer knowledge to other levels of government. Rather than relying on outside expertise to develop training, the project will use a train-the-trainer approach, which will create an autonomous level of capacity in the country, which in turn can be useful for future initiatives.

³⁵ De Groot et al. 2013. Benefits of investing in ecosystem restoration. *Conservation Biology* 27: 1286-1293.

³⁶ Rao et al. 2013. *An economic analysis of ecosystem-based adaptation and engineering options for climate change adaptation in Lami Town, Republic of the Fiji Islands*. A technical report by the Secretariat of the Pacific Regional Environment Programme. Apia, Samoa.

³⁷ A combination of EBA and hard engineering options is the most effective option to decrease vulnerability to floods according to this study. However, EBA interventions are prioritised in the proposed project as it focuses mainly on reducing the negative effects of droughts and bushfires.

The project will also be cost-effective in that the project design and implementation include a variety of stakeholders, each with their value added in supporting implementation. There will be stakeholders from the environment, agriculture, water resources and energy sectors engaged in the project, acting both as project beneficiaries and implementers. NGOs and existing cooperatives will also be able to bring their expertise to support project implementation. The proposed project includes training for local authorities, committees and user groups on adapting communities to climate change using EBA as well as a participatory identification of locally specific climate change vulnerability, risks and adaptation options by local stakeholders. This will enhance community ownership of the project interventions, which will in turn reduce the cost of monitoring and maintenance of the activities as well as promoting the sustainability of the project interventions beyond the lifespan of the project.

In addition, in order to ensure that cost-effective strategies are adopted throughout implementation, the project will support the development of key studies, including for example market-based feasibility studies for the diversification value chains, which will all be part of the AKMS. This will help ensure that only the most economically viable opportunities are pursued, reinforcing the need to create rapidly visible benefits and impacts for local communities.

5) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The activities planned under each component of the proposed project will contribute to various global environmental benefits (GEBs).

Biodiversity

Tanzania is one of the mega-biodiversity rich countries globally and known as a custodian of world heritage in the form of game reserves and national parks. The extensive game reserves, national parks, forest reserves, the Eastern Arc Mountains, wetlands, coastal forests, marine and fresh water systems in Tanzania are among the world's greatest reservoirs of biodiversity. Tanzania hosts two of globally known biodiversity hotspots (i.e. Eastern Afromontane biodiversity hotspots and Coastal Forests biodiversity hotspots shared by Kenya)³⁸. The Selous Game Reserve, the Ngorongoro Crater and Serengeti National Park are World Heritage Sites. Lake Manyara National Park and the Serengeti-Ngorongoro ecosystem, have been designated as biosphere reserves.

Tanzania has designated about 40% of Tanzanian total surface area as forest, wildlife and marine protected areas. The country is home to 31 endemic species of amphibians, 43 species of butterflies, 18 endemic species of lizards, 9 species of snakes, 10 bird species (ranks twelfth globally in terms of bird species), 40% of the world's wild coffee varieties, about 80% of the famous African violet flowers, and is a home to about 20% of Africa's large mammals. In terms of flora, Tanzania accounts for more than one-third of total plant species in Africa (a at least 800 other endemic species of plants); mostly found in the Somali-Maasai phytochorion, Zanzibar-inhambane mosaic, Zambezi phytochorion, Afromontane, and Lake Victoria mosaic).

Biodiversity is critical to the national economy contributing more than three quarters of the national GDP and sustaining livelihoods of majority of Tanzanians. Agriculture, livestock, forestry, and fisheries together contribute over 65% of GDP and account for over 80% of total employment and over 60% of the total export earnings. Furthermore, forests provides for over 90% of energy consumption in the country, while hydropower contributes about 37% of power supply in the country¹⁶. The average Total Economic Value (TEV) of catchment forest reserves was established to be more than 17,250 USD/ha. On the other hand, tourism industry is now worth over US\$1 billion annually¹⁶.

Climate Change Mitigation

Various climate change mitigation initiatives have been undertaken in Tanzania in the context of United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. Tanzania ratified the UNFCCC in year

³⁸ <http://tz.chm-cbd.net/biodiversity>

1996 and the Kyoto protocol in 2002. Prior to the ratification of the UNFCCC, the Government of the United Republic of Tanzania (URT) conducted an inventory of Greenhouse Gases (GHGs) with focus on Carbon Dioxide (CO₂), Methane (CH₄) and Nitrous Oxide (N₂O)³⁹. The base year for the development of the inventory of GHGs emissions and removals in Tanzania was 1990. Major sectors addressed in the inventory were energy, agriculture, industrial process, waste management, and forestry and land use.

Total GHGs emissions in Tanzania in 1990 from the selected GHGs was estimated and presented at 64, 885 Gigagram (Gg)⁴⁰. Carbon dioxide emissions from in 1990 amounted to 55,208 Gg⁴¹. Total emission evaluation using the Global Warming Potential Index (GWP) indicates that the emissions of CO₂ contributed 55% to potential warming due to the 1990 emissions, CH₄ provided 44%, and N₂O provided 1%⁴². By tracing the sources of emissions, the study established that land-use changes and forestry sector made the largest contribution (53%) towards the warming that may result from the 1990 emissions of trace gas in Tanzania followed by agriculture (33%), energy (13%), and waste management (1%). Industrial processes contributed less than 1% of potential warming.

Land use changes and forestry had the largest contribution to emissions because wood fuel (charcoal and firewood), is the main source of energy to both rural and urban areas. It accounts for approximately more than 90% of the primary energy supply. Commercial energy sources, *i.e.*, petroleum and electricity, account for about 8% and 1% respectively of the primary energy used. Coal accounts for less than 1% of the energy used. Total annual fuelwood and charcoal use is estimated at 32 million cubic metres of which only 1/3 is obtained from clearing the forests for charcoal and fuelwood. The rest is obtained from agricultural clearing.

In year 2009, the Tanzanian government prepared the National Framework for Reducing Emission from Deforestation and Forest Degradation (National REDD Framework). The main objectives of National REDD framework are to facilitate effective and coordinated implementation of the REDD related policies, processes and activities so as to contribute to climate change agenda; and to establish mechanisms required for Tanzania to benefit from a post-2012 internationally approved system for forest carbon trading, based on demonstrated emission reductions from deforestation and forest degradation. The REDD framework in Tanzania was followed by a research program initiated to support the REDD implementation capacity in Tanzania (Climate Change Impacts, Adaptation and Mitigation in Tanzania-CCIAM). A number of REDD-related projects have demonstrated the feasibility and success of projects that facilitate community-driven forest conservation and create opportunities for non-forest based income generation, lessons that will be incorporated in this proposed project's design.

Adaptation benefits expected from this project include:

- Improved coordination and planning for adaptation through integrated knowledge management systems
- Increased institutional and individual capacities for adaptation planning at decentralized levels
- Detailed knowledge of climate change impacts on local communities and ecosystems services, providing the evidence base for resilience planning
- Rehabilitation of degraded ecosystem services (provisioning, regulating) including soil fertility, water conservation and soil moisture, nutrient cycling, productivity, biodiversity and biomass conservation, reduction of carbon emissions from land use change
- Increased incomes for vulnerable populations and increased diversity of livelihoods and nutrition

6) Innovativeness, sustainability and potential for scaling up

Innovativeness

³⁹ CEEST, URT, UNEP (1999). Climate Change Mitigation in Southern Africa: Tanzania Country Study

⁴⁰ United Republic of Tanzania-URT (2003). Initial National Communication under the UNFCCC, Division of Environment, Vice President's Office, URT

⁴¹ CEEST, URT, UNEP (1999). Climate Change Mitigation in Southern Africa: Tanzania Country Study

⁴² CEEST, URT, UNEP (1999). Climate Change Mitigation in Southern Africa: Tanzania Country Study

The project will introduce ecosystem-based adaptation approaches as a no-regrets option for resilience and adaptation that can achieve development results such as ecosystem conservation, environmental rehabilitation as well as poverty reduction. The project will also introduce innovative measures such as the Adaptation Knowledge Management System (AKMS) using GIS and web-based tools to group adaptation initiatives, lessons learned and contribute to more efficient adaptation planning at the national and local scales thanks to a cross-sectoral multi-stakeholder group, including CSOs, NGOs, private sector and government, that will support the management and maintenance of the system. Participatory climate change vulnerability impact assessments will also be undertaken in project sites to map physical and socio-economic vulnerabilities as well as to develop maps of drought and flood risk zones, which will all be recorded in the AKMS. Finally the project will also seek to pilot resilient livelihoods strategies, including livestock value chains, beekeeping, efficient charcoal production to sustain diversification of livelihoods in the face of emerging climate conditions. The project also seeks to implement an innovative approach to adaptation in Tanzania, by focusing on the rehabilitation of rangeland, watersheds, riverbanks and ecosystems as a means to reduce vulnerability of targeted communities.

Sustainability

In order to ensure that the continued achievement of the objectives and outcomes of the EBARR project are supported and sustained, several key principles that support sustainability will be adopted.

Country ownership will be ensured through the following strategies:

- Partnering with public institutions including national, departmental and local governments and structures (district authorities and selected wards),
- Working closely with community-based organizations (including traditional institutions) and supporting them to establish their own effective management structures during implementation,
- Supporting interventions that reinforce government plans and activities, and that can be integrated into government policies, which will make project interventions and consequences more relevant to government institutions. For instance, the EBARR project promotes conservation and management of existing landscapes and ecosystems (to rescue and sustain ecosystem goods and services) in the proposed project sites, which is in line with; i) national forest management programmes/strategies, ii) NEAP 2013-2018, iii) Water Sector Development Programme 2006-2015, iv) Agricultural Sector Development Programme, v) the National Strategy for Growth and Reduction of Poverty II in Tanzania (NSGRP II: 2010-2015); *i.e.* Cluster I: Growth for Reduction of Income Poverty which include ensuring food and nutrition security, environmental sustainability and climate change adaptation and mitigation, etc.
- Promoting a learning-by-doing approach. This will allow beneficiaries of the project to put into practice the activities and strategies proposed in the EBARR project. The project will be adaptive in nature for this very purpose: to identify the activities that are most sustainable and beneficial leading to improved livelihoods. The improved livelihood strategies will be piloted and adapted to achieving results.
- Implementation of effective communication strategies and the deployment of a comprehensive knowledge management system which will assist in coordinating all stakeholders working on adaptation in the country.
- Training programs (enforcement officers at the district and ward level, village forest scouts, village environmental committees, local communities).

Furthermore, the project's sustainability is also encompassed within the scope of Components 1 and 3. The Adaptation Knowledge Management System (AKMS) under Component 1 will be wholly owned by the Tanzanian government as a tool to plan, coordinate and manage adaptation interventions, as well as to allow building on key lessons learned and success examples. This will create conditions for long-term sustainability of this and other projects. In addition, the strengthening of capacity at local level, involving local government authorities and extension staff will contribute to the further dissemination of adequate adaptation technologies at the local level. As understanding of vulnerability increases among local stakeholders, so will their ability to self-identify adaptation strategies. It is also hoped that the creation of

economic incentives and increased opportunities for development using sustainable techniques will help communities maintain appropriate natural resource use practices. Finally, activities under Component 3 will provide an information basis on which to further replicate the project's successes and lessons, particularly identifying conditions of success and ensuring that all relevant stakeholders are involved and have increased knowledge and awareness.

Upscaling

All project activities have the potential to be replicated at the national level and ensure greater aggregate impacts. Through individual and institutional capacity building at the national level (Component 1), and thanks to the implementation of a GIS-based AKMS, the project will improve stakeholders' access to knowledge on climate change adaptation and ecosystem-based adaptation. The project will seek to learn from lessons learned and best practices gained through project implementation to develop an upscaling strategy as well as a sustainability strategy (Component 3). Thanks to training of local authorities and user groups on climate change vulnerability and adaptation planning, stakeholders will undertake participatory climate change vulnerability impact assessment in selected project sites in order to identify drought, flood, pest and diseases risk zones and assess the physical and socio-economic impacts of climate change (Component 2). Ecosystem rehabilitation through EbA practices, such as sustainable management and conservation of natural resources, and climate resilient livelihoods, conducted in Component 2 will prove that the concept of ecosystem-based adaptation approach works in the Tanzanian context and will provide an example for replication. The interventions on alternative livelihoods (Component 3) is a foray into upscaling community and private sector activities for income generation, and provides a pivotal first step for enhancing economic activity at a larger scale.

More specifically, this project will be replicated and up-scaled not only through a robust knowledge management plan that will be supported and maintained by a cross-sectoral multi-stakeholder group and used for adaptation planning (activity 1.1.2), but also through local NGOs who will take part in the implementation of local activities. Replication will be possible because of the training provided among VPO staff, national climate change steering committee, working group members as well as climate change and disaster management focal points in relevant ministries on the environment, forest, water and agriculture sector on the benefits of ecosystem-based adaptation (activities 1.2.1 and 1.2.2). Indeed, the upscaling strategy will include the development and dissemination of practical and applied training and communication material for different target audiences, such as policy decision makers, planning, agricultural advisory services at the local level (activity 3.1.2). Finally, through the participatory climate change vulnerability impact assessment using guidelines for VIA under PROVIA, stakeholders will be fully engaged in the identification of adaptation actions (activity 2.2.1), and will be able to transfer lessons learned and new knowledge to neighbouring communities in order to upscale the project's results.

A.2. Child Project? If this is a child project under a program, describe how the components contribute to the overall program impact.
N/A

A.3. Stakeholders. Elaborate on how the key stakeholders engagement, particularly with regard to [civil society organizations](#) and [indigenous peoples](#), is incorporated in the preparation and implementation of the project.

A variety of stakeholders have been engaged in the project since the onset of the project preparation phase, which was initiated in April 2015. The Project Preparation Inception Workshop was held on August 6th 2015 in Morogoro, during the Inception mission that took place from August 2nd to August 14th 2015. The Inception Workshop brought together government entities at national and local levels, potential partners, and other prospective stakeholders that were identified during the course of project preparation. The Inception mission took the project preparation team to three of the four selected districts in the Mainland and to Zanzibar. The fourth district in the Mainland could not be reached during the Inception mission due to lack of time and long travel distances. Visits to each district included consultation meetings with district technical officers as well as community consultation in the form of focus group discussions with particular attention to hearing the voices of vulnerable groups, namely women, indigenous people, people with disabilities, elders, youth, farmers and pastoralists.

Following a site selection process (see Appendix 8 of project document), a second mission took the project design team, with the support of the VPO, to another set of districts, to ensure adequate support and consultation in prospective project sites. Finally, the validation workshop, which took place on April 13th, 2016 in Morogoro, brought together project stakeholders from each selected project site, including VPO, and representatives from specific sectors (water, agriculture, livestock, forestry), CBOs, NGOs to discuss the final list of project activities and expected results. Detailed reports of the inception mission, consultations and validation workshops can be found in Appendix 18.

Stakeholders were consulted during the project development in order to:

- Identify and understand the current issues in each community including environmental problems
- Understand how community members wish to improve the situation and discuss adaptation options and strategies
- Identify and select criteria for site selection,
- Gather local climate change observations for each selected site,
- Validate the project's components, outcomes and outputs,
- Identify local needs and socioeconomic factors,
- Identify ongoing projects and other initiatives relevant to the project activities, and
- Define potential project stakeholders and partners as well as opportunities for coordination and synergies.

The stakeholders are listed below:

1. **Government stakeholders:** The Vice President's Office has coordinated consultation and input provided by all relevant government sectors, starting first with the MALF, as well as ministries of water and irrigation, ministries responsible for women and youth, the Prime Minister's Office – Ministry of Regional and Administration and Local Government (PMO-RALG) and the NEMC. While the project will be coordinated by the VPO, other government entities and in particular local government authorities (LGAs) will be partners in the delivery of activities designed to rehabilitate ecosystem services and implement livelihoods diversification.

2. **Local communities** living in the project's selected districts and regions will be the primary beneficiaries of the project. They will not only be engaged in the implementation, but also in monitoring activities through participatory M&E and in sustaining and or contributing to the replication of ecosystem-based adaptation after the projects completion. Local communities actors will be at the forefront of implementing the project's activities and will be the primary recipients of capacity building. This includes organizations whose activities focus on environmental awareness-raising through events, including days dedicated to cleaning, tree-planting, and domestic waste cleaning. Very often these associations are created and run by youth. Natural resources management groups as well as water user groups will also be included. Because of the role women play in managing natural resources, mainly through fuelwood collection and agriculture, the project will place special emphasis on ensuring that women are consulted and involved in project activities, through existing women's groups. Targeted capacity building efforts will be made and project activities will be designed in a way so as to ensure that women can benefit from resilient technologies and practices, including labor-saving technologies, while also ensuring that women benefit from any increased income from resilient watershed use practices and alternative livelihoods sources.

3. A key cornerstone of this project is the development of ecosystem-based adaptation land use plans, in which all land users will participate. This will allow for the development of informal or formal agreements on land use sharing and benefit sharing, and provide a basis for enforcement. The participation of local stakeholders in the assessment of local vulnerability, the selection and implementation of adaptation interventions will promote local ownership and support for project activities in the implementation phase, as well as strengthening their sustainability after project completion.

4. **Non-Governmental Organizations, Civil Society Organizations, and Educational Organizations** – NGOs, CSOs (such as ForumCC: Tanzania Civil Society Forum on Climate Change) and educational organizations (national institutions whose excellence is recognized in the field of climatology, agriculture, and climate change adaptation policies, such as the Institution of Resource Assessment at the University of Dar es Salaam) will provide linkages,

research as well as logistical support when needed. They will also be part of consultative processes to ensure that the project has a bottom-up approach and responds to the needs of communities. These stakeholders will be identified and their capacity assessed during project inception.

5. **Private Sector** - The private sector will play a significant role in this project, particularly as Component 2 seeks to encourage alternative livelihoods. Options for new value chain development will be explored with key private sector partners, as will avenues for marketing and supply to ensure the sustainability and commercial viability of alternate, new or niche products identified by the project.

6. **International Partners** – International partners have been working in various capacities in Tanzania. Their experience, successes, lessons learned and logistical arrangements will all be drawn upon to ensure the success of this project. Coordination will be sought with some activities to ensure complementarity and harmonisation of development interventions, as outlined in Section 2.7. Key partners include: UNDP, FAO, WB, AfDB, and IFAD.

A.4. Gender Equality and Women's Empowerment. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men.

Tanzania has made notable progress on gender equality and women's empowerment (GEWE). The Vision 2025 for Tanzania Mainland stipulates equality between men and women as laid down in the Constitution and recognizes gender equality and the empowerment of women in all socio-economic and political relations and cultures as one of the strategies to attain the vision. Key national policy frameworks such as the Strategy for Growth and Reduction of Poverty (MKUKUTA II and MKUZA II in Tanzania Mainland and Zanzibar respectively) have identified gender equality and women's empowerment (GEWE) as among the major development issues which require multi-sectoral approaches. But despite much progress, women and girls in rural areas still face significant challenges, which makes them inherently more vulnerable.

For example, access to land continues to be difficult for women, and their farms are smaller, largely rain fed and use less hired labour. A recent report shows that “women's mean wages when they are hired as casual farm labourers, are almost three times lower than those of men in agriculture(...) Most farm holders operate at subsistence level, comprising 89 percent of male holders and 92 percent of female holders. Farm holders cultivate between two and three different crops on average, with no major differences between sexes. Few farmers, either women or men, benefit from use of agricultural inputs, and there is a significant gender gap among market-oriented farmers with regard to the use of improved seeds”⁴³.

In the proposed project, gender equity has been advocated during the Project Preparation Phase and will be promoted in each activity. During the focus groups of the consultation mission, vulnerable groups such as women, youth and the elderly were particularly active in expressing their concerns on their vulnerability. In order to ensure gender equity, women's voices will be included from the start of the project. The proportion of women involved in the project activities will be monitored during project implementation. Stakeholder decisions relating to project activities will only be made with a sufficient representation of women in attendance. Specific activities designed to improve access to productive assets and productivity enhancing techniques will be targeted at vulnerable groups, including women, youth and the elderly and will include the introduction of climate-smart agriculture practices, climate resilient livelihood activities, such as efficient charcoal production methods, beekeeping and livestock value chains. Finally, indicators and results will also be gender-disaggregated to measure how women are being empowered through the project.

Based on calculations, an estimated 66% of this project's resources are targeting activities that support women's empowerment and the reduction of women's specific vulnerabilities.

⁴³ FAO, 2014, Gender inequalities in rural employment in Tanzania

A.5 Risk. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

The following table describes the risks that might prevent the project objective from being achieved the proposed interventions and measures to mitigate them.

	Description of risk	Potential consequences	Risk rating	Mitigation measures/proposed interventions	Risk category	Probability & Impact (1–5)
1	Current climate and seasonal variability and/or hazard events prevent implementation of planned activities.	Economic loss or physical damage to infrastructure is a challenge to the timely implementation of project activities.	Medium	<ul style="list-style-type: none"> Consider current climatic variability during the rehabilitation/reforestation process. Focus on climate-resilient species and techniques to: i) assist plant growth particularly in the seedling/sapling phase; and ii) reduce risk of damage from hazard events. Take meteorological predictions and seasonal variability into account to reduce the risk of damage to plants. 	Economic	P = 3 I = 5
2	Climate change adaptation priorities undermined by national emergencies	Project activities are interrupted. Natural and financial capital is lost.	Medium	<ul style="list-style-type: none"> The project manager and the PCU will keep abreast of national events and politics to plan contingency activities when/if necessary. 	Social, environmental	P = 2 I = 5
3	Lack of funds after project may reduce sustainability of project outcomes	Financial instability may undermine the efforts established during the project implementation, leading back to maladaptive practices (institutional and social) due to lack of funding.	Medium	<ul style="list-style-type: none"> The project will pay particular attention to the key factors of success in the implementation of resilient ecosystem-based adaptation as a strategy for the rest of the country. The project will support the development district-based consultative platforms (with district level technicians) to discuss project outcomes, assess their potential for replication, develop an up-scaling strategy, a mainstreaming strategy, and a financing strategy that will consider all possible future sources. 	Economic	P = 2 I = 2
4	Poverty and other social factors prevent local communities from adopting resilient	If local communities do not fully get involved in the project due to social factors, they will perpetuate	High	<ul style="list-style-type: none"> Actively involve local communities in project planning and implementation. In particular communities should have the final say in the selection of alternative livelihoods so that risk is not overly placed on their households. Foster a bottom-up, grassroots approach throughout the project's development 	Social, environmental	P = 2 I = 4

	ecosystem-based adaptation measures for the long-term, instead opting for maladaptive activities for short-term benefits.	maladaptive practices that will result in a spiralling of the root causes underlying what the project seeks to address – i.e. unsustainable use of natural resources, which will then lead to further degradation of ecosystems. Consequently, communities will continue to be vulnerable to climate-induced natural hazards.		<p>and implementation phases.</p> <ul style="list-style-type: none"> • The project will carry out information dissemination activities at the local level ensuring that communities are aware of the benefits of ecosystem-based adaptation approaches. • The emphasis on livelihoods will also place people’s socioeconomic welfare at the heart of the project and offset some of the risks they may incur in choosing adaptive measures. • Implement alternative livelihoods that have proved to be financially, technically and socially viable/feasible to reduce reliance on intensive land use. • Inclusive interventions such as developing land use management plans for water management will ensure that individuals have a role and stake in the project. 		
5	Institutional capacity and relationships between line ministries are not sufficient to provide effective solutions to climate problems that are complex and multi-sectoral.	Multi-sectoral adaptation interventions are compromised and interventions are confined to those sectors willing to engage in cross-sectoral dialogue. The vulnerability of certain sectors and Tanzania as a whole is not fully addressed.	High	<ul style="list-style-type: none"> • Promote the development of institutional capacity throughout the project design. This will ultimately lead to the development of an appropriate institutional framework for analysing climate change impacts, amending policy and implementing EbA interventions for climate change adaptation. • The component 1 AKMS system is also intended to help resolve some of the issues related to inter-sectoral coordination. • The project will promote inter-ministerial collaboration so as to ensure cross-departmental accountability and cooperation. • Training and capacity building will also be provided, which will allow this project to provide learning incentives. 	Institutional	P=4 I=4
6	Loss of government support may result in poor prioritisation of proposed project activities.	Project activities are delayed.	Medium	<ul style="list-style-type: none"> • Engage with the government to maintain its commitment to the proposed project. • Integrate the objectives of national development policy in decision-making throughout the project to maintain government commitment. 	Institutional	P=1 I=3
7	There is a lack of	The procurement procedure is not	Medium	<ul style="list-style-type: none"> • The PCU will start procurement well in advance and grouping procurement as 	Operational	P=2

	procurement capacity	well established, which delays implementation of the project's activities.	m	much as possible.		I=2
8	Limited technical capacity to conduct preliminary studies and design the implementation of activities.	Preliminary studies do not take place resulting in delayed implementation of project activities.	Medium	<ul style="list-style-type: none"> Identify and develop human resource capacity as required. Include funds in the project budget for preliminary studies to hire international consultants to complement the research team. Engage field officers to work closely with the project manager of the proposed project to ensure timely delivery of project outputs. 	Technical	P=2 I=2
9	Priority interventions implemented are not found to be cost-effective.	Project interventions are not upscaled for large-scale EbA programmes	High	<ul style="list-style-type: none"> Conduct baseline studies on cost-effectiveness and pilot each proposed alternative livelihoods in demonstration sites. Record detailed information on cost-effectiveness. Such information will be widely disseminated to allow future projects to use them Use cost-effectiveness as a core principle in the implementation of adaptation measures. 	Economic	P=2 I=4
10	The Project Coordination Unit (PCU) is located too far from the project sites which creates delays for successful implementation	Project funds are not transferred to the PCU; Poor communication prevents the project to progress in time.	Low	<ul style="list-style-type: none"> It is proposed that the PCU be located within a decentralized administration, near the project sites. The Project Steering Committee (PSC) will analyse the costs and benefits in the choice of the PCU's location. Communications channels and transfer procedures between VPO and other partners will be clearly established, based on already established decentralized governance structures to facilitate funds transfers. 	Operational	P=2 I=4

A.6. Institutional Arrangement and Coordination. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Institutional Arrangement for Project Implementation:

The Implementing Agency for the GEF will be UNEP. A UNEP Task Manager will provide technical and administrative support and monitor the implementation of the project according to the UNEP regulations and procedures.

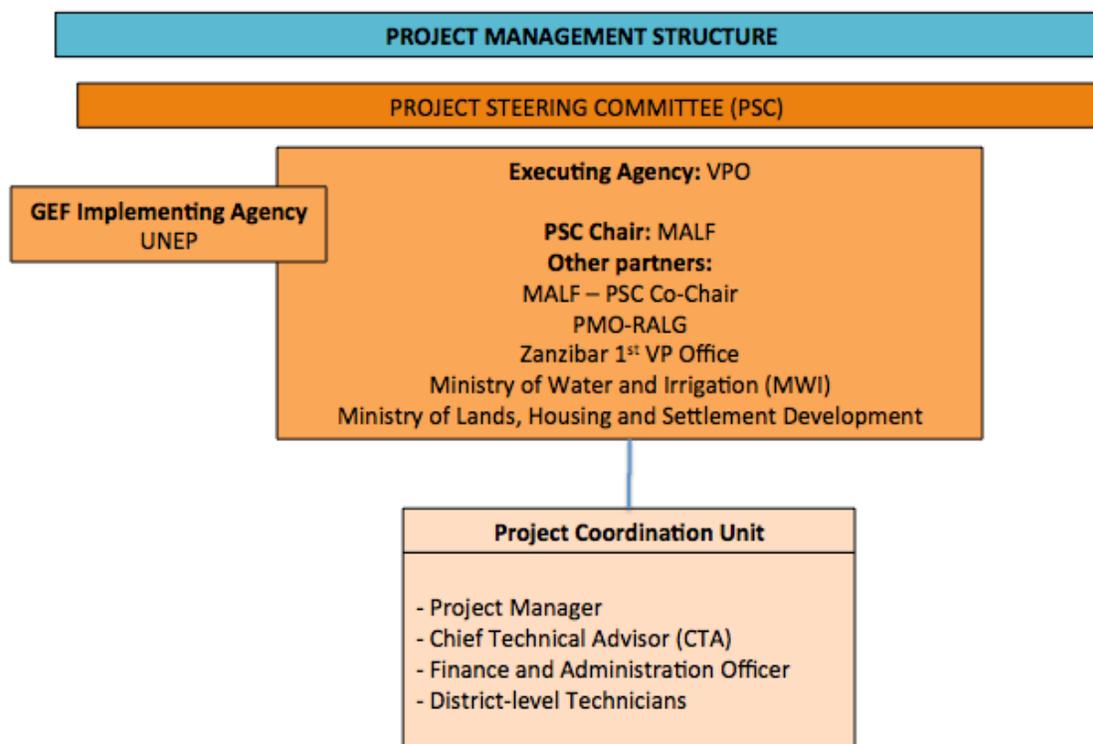


Figure 1: Organogram of the Project Management Structure

The national Executing partner will be the Vice President’s Office, who will coordinate the project on behalf of the government. The VPO will provide administrative housing for the project coordination unit, which will, to the extent feasible, be located close to the project sites (e.g. in Morogoro). The VPO will work closely with other responsible executing partners, including for example the Ministry of Agriculture, Livestock and Fisheries and the Ministry of Water and Irrigation, for the successful implementation of activities that fall within their sector. MoUs and letters of agreements between ministries will be established during the inception period, and will specify the activities to be implemented through sectoral ministries, responsibilities and accountabilities, and financial accountability procedures.

A **Project Steering Committee (PSC)** will be established at the outset of the project. The PSC will be composed of the following members:

- Vice-President’s Office (VPO)
- Ministry of Agriculture, Livestock and Fisheries (MALF) (Chair) and directorates responsible for rural water, crop production and extension,
- President’s office - Regional Administration and Local Government, Public Service and Good Governance.
- Ministry of Natural Resources and Tourism
- Ministry of Industry and Trade
- Ministry of Energy and Minerals
- Ministry of Water and Irrigation
- Ministry of Finance and Planning
- Ministry of Land, Housing and Settlement Development
- Office of the first Vice President of Zanzibar,
- Ministry of lands, water, energy and environment (Zanzibar)
- District Councils
- A representative of NGOs and civil society
- UNEP

The PSC members will be Permanent Secretaries or their designated alternates and members from the district councils will be represented at the level of District Executive Directors. The PSC will be responsible for making management decisions for the project, in particular when guidance is required by the Project Manager (PM). The PM will serve as secretary to the PSC. The PSC will play a critical role in project monitoring and evaluation by assuring the quality of these processes and products, and using evaluations for performance improvement, accountability and learning. The PSC will ensure that required resources are committed and will arbitrate on any conflicts within the project or negotiate solutions to any problems encountered with external bodies. The PSC will consider and approve the Annual Work Plans and approve any deviations from the original plans, if deemed necessary. Overall, the PSC will serve as decision-making support, as appropriate throughout project implementation. It will meet at least twice yearly. The PSC will have the authority to create and support other ad hoc committees, such as for example technical committees. District administrations participating in the project will also be able to create their own steering committees to oversee the implementation of activities within their areas of jurisdiction.

In order to ensure UNEP's ultimate accountability for the project results, the PSC's decisions will be made in accordance with standards that ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. If consensus cannot be reached within the PSC, the final decision shall rest with the UNEP Task Manager(s).

UNEP will be responsible of the supervision and coordination of the government contribution to the project, working in close collaboration with the implementation team and processing the requests for disbursement of funding and production of financial reports, in compliance with the rules and procedures of UNEP.

The **Project Assurance** role will support the project by carrying out objective and independent project oversight and monitoring functions, and will be held by a UNEP staff member (usually a Task Manager).

The Project Coordination Unit (PCU)

The project will be coordinated by a Project Coordination Unit, comprised of key project personnel, who will oversee the general administration of the project. Members of the PCU will be recruited by the VPO, based on open recruitment processes, in consultation with UNEP. While VPO will provide administrative housing for the PCU, if possible, the PCU will be located in proximity to the project sites, within the offices of a decentralized sectoral ministry among the responsible executing partners for this project. The PCU will be comprised of the project manager, chief technical advisor and a financial and administrative assistant.

The Project Manager (PM) has the authority to run the project on a day-to-day basis on behalf of the Implementing Partners within the constraints laid down by the PSC. The PM's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The PM will also be responsible for the overall overseeing and management of the project, i.e. the specific work plans. Stringent communication channels and lines will be established to guarantee that the decentralized design of this project will be successful. The PM will be accountable to the PSC through VPO, and will be enabled to work directly with focal points designated in each Ministry to support this project. The PM will be responsible for overall management, reporting and financial management according to UNEP guidelines. The PM will guide and supervise the work to be conducted by the financial and administrative officer, district-level technicians as well as the national and international consultants, who will be hired in support of project implementation. The PM will be recruited by the VPO in collaboration with UNEP and will function under the authority of the PSC.

The **Chief Technical Advisor (CTA)** will be recruited as a consultant to provide technical guidance on the implementation of the project to the PM. The CTA will also assist the PM in leading the project. The CTA will fulfill the following functions: i) quality assurance and technical review of project outputs (e.g. studies and assessments); ii) assistance in drafting ToRs for technical consultancies and supervision of consultants work; iii) assistance in monitoring

the technical quality of project M&E systems, including annual work plans, indicators and targets; iv) providing advice on best suitable approaches and methodologies for achieving project targets and objectives; v) provide a technical supervisory function to the work carried out by the other technical assistance consultants hired by the project; and vi) assisting in knowledge management, communications and awareness raising.

The **Financial and Administrative Officer** (FAO) will work under the direct supervision of the PM and will be based at the national coordination office. She/he will assist the PM in the effective execution of the project and will be required to undertake intensive coordination with the local level technical coordination committee and with other relevant partners. The FAO is responsible for the development of annual budgets, maintenance of regular records of accounts, annual auditing, payment of invoices, as well as the development of regular cash statements and requests for advances, working with UNEP Financial Management Officer, and the CTA. The FAO is also responsible for logistical assistance and preparation for missions, and managing the project's physical assets. All accounting actions shall be implemented in strict adherence to Tanzanian and internationally recognized accounting standards.

The project will also appoint part-time **District-level technicians** (DTs) to support the execution and supervision of local level works. They will be appointed by the MALF from within each project district and will work under the direct supervision of the PM. They will act as a liaison between the PM and the service providers, local communities and local governments in each district.

The project will develop sub-contracting agreements with national institutions whose excellence is recognized in the field of climatology, agriculture, and climate change adaptation policies (such as the Institution of Resource Assessment at the University of Dar es Salaam) in order to deliver specific outputs or activities. This may include private sector service providers. Procurement of services and goods will be undertaken in accordance with Tanzanian policies and in line with internationally upheld standards.

Coordination with other projects:

The proposed project will also coordinate with existing projects in order to promote synergies when appropriate, support other interventions, share knowledge, share resources when possible, avoid duplication and ensure value-added to the adaptation efforts in Tanzania. The key initiatives that the project will coordinate with are listed below:

The **Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA, UNEP, \$US 600,000 over the five years of the project)** will also serve as a baseline program. PROVIA aims to “provide direction and coherence at the international level for research on vulnerability, impacts and adaptation (VIA) and responds to the critical need to harmonize, mobilize and communicate the growing knowledge base on VIA.⁴⁴ Its priority activities include: international agenda of research, advice and scientific information, communication with VIA-Community and guidelines and VIA-Assessment Tools. The proposed project will use VIA guidelines to conduct climate change vulnerability impact assessment (VIA) in order to assist local communities in identifying best adaptation options, according to a variety of criteria, including sustainability, resilience and inter-seasonal variability, profitability and access to markets. This information will then be submitted for integration into the knowledge management system proposed under this project, hence enabling the monitoring of the evolution of vulnerability in the same sites across time, and it will also complement the existing data on VIA within PROVIA resources.

The **Implementation of concrete adaptation measure to reduce vulnerability of livelihoods and economy of coastal communities of Tanzania** (UNEP Adaptation Fund, \$US 5,008,564). This project aims at implementing infrastructure and ecosystem based adaptation measures in the coastal area. The project includes a component aiming at strengthening the central government's capacity to understand coastal vulnerability, as well as activities to rehabilitate or construct coastal protection infrastructure. Linkages with this proposed initiative will include the sharing of approaches and methodologies for vulnerability assessment, integration of the coastal vulnerability observation system within the knowledge management system proposed in this EBARR project, and, where possible, joint interventions for cost savings.

⁴⁴ About PROVIA: <http://www.unep.org/provia/ABOUT/WhatisPROVIA/tabid/55216/Default.aspx>

Tanzania Climate-Smart Agriculture Programme (2015-2025, US\$ 32,158,00, funded by DFID) coordinated by VPO and MALF and part of the Agriculture Climate Resilience Plan 2014-2019, which is part of the Agricultural Sector Development Strategy. This project 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. Coordination with this project will occur through the development of coordination mechanisms such as a joint Steering Committee and Project Management Unit coordination meetings. Coordination within the VPO and MALF will be developed to ensure synergy and cooperation, sharing of methods and lessons learned. These synergies will enable the proposed LDCF project to build on this programme's outcomes, mainly the improved productivity and incomes and the sustainability of agricultural advisory services, in order to deliver appropriate ecosystem-based adaptation strategies.

The Agricultural Sector Development Programme: Livestock: Support for Pastoral and Agro-Pastoral Development (ASDP-L: 2005-2015: US\$ 32.8 million, supported by IFAD) is part of the ASDP and aims at improving food security and increasing incomes of the poorest members of herder and agro-pastoralist groups who rely on livestock for their livelihoods. The proposed LDCF project will support rangeland rehabilitation and a livestock management strategy to eventually develop livestock value chains, such as meat processing and hides. Coordination with ASDP-L will therefore enable lessons learned in the ASDP-L to be monitored and incorporated in the proposed LDCF through the cross-sectoral and multi-stakeholder group in the Adaptation Knowledge Management System.

The Marketing Infrastructure, Value Addition and Rural Finance Support Programme (MIVARF: 2010-2017, US\$ 169.5 million supported by IFAD) aims at enhancing incomes and food security in all 26 regions of the mainland and Zanzibar, through increased access to financial capital, services and markets. Interventions made by this programme include: increasing access to more financial services and to sustainable agricultural input and output market opportunities. Coordination with this programme will occur through the exchange of lessons learned on value chain development in order to ensure only successful ones are identified and build upon to guarantee a 15% increase in income and maintained across all seasons.

The Bagamoyo Sugar Infrastructure and Sustainable Community Development Programme (BASIC: 2015-2024, US\$ 136.6 million supported by IFAD) is a public-private sector programme that aims at transforming rural areas of 27 villages in the Bagamoyo District within a 40km-radius of a sugar mill, providing villagers with income generating opportunities in the sugar industry. This programme will introduce an inclusive business model for smallholder farmers, promoting a climate-smart production system through IFAD's Adaptation for Smallholder Agricultural Programme (ASAP), building capacity to sustainably manage natural resources and financing land use planning in villages to obtain land certificates. The proposed LDCF project will coordinate with BASIC to learn from Bagamoyo District about climate-smart practices and exchange knowledge on integrated natural resources management developing commercial agriculture and leading to agribusiness development.

The Rural Micro, Small and Medium Enterprise Support Programme (2006-2015, US\$ 25.3 million – Swahili acronym: MUVI, supported by IFAD), aims at supporting development of value chains delivering improved sustainable margins to producers and thus increasing their incomes and reducing poverty. There are three goals to this programme: i) to improve the awareness of rural entrepreneurs of market opportunities and how these can be exploited through the development and implementation of a communication strategy (including radio linkages to poor and remote areas) and the training of the entrepreneurs to improve their businesses, ii) to improve the coordination and cohesion of selected value chains, through the creation and strengthening of backward and forward linkages for the selected chains, and iii) to strengthen public and private sector institutions to provide efficient and effective support to rural enterprises. Skills training, knowledge and access to markets are provided to medium and small-scale rural entrepreneurs in order for them to increase productivity, profitability as well as off-farm incomes. Coordination with this project will occur through the development of coordination mechanisms to incorporate lessons learned about successful value chain development and monitoring and evaluation activities to include into the AKMS.

The Feed the Future program in Tanzania, supported by USAID through the Global Hunger and Food Security Initiative (2011-2017, 30 million US\$). In Tanzania the program is aiming at reducing food insecurity through investments aimed at improving agricultural productivity, improve market access through roads, increased trade through value chain

efficiency, supplementary feeding programs. The FTF program is focused on rice, maize and horticulture and works in the project regions, including Morogoro, Dodoma, Iringa, beya, Manyara, and Zanzibar. The FTF program also works with the Tanzania National Agricultural Research service and University to support the production of improved seeds and technologies, core agricultural statistics and to tackle institutional issues related to inputs, credit markets and land tenure.

The Global Climate Change Alliance Program, supported by the EU (2.2 million Euro). The overall objective of this program is to increase local capacity to adapt to climate change. It is 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. In Zanzibar the project is implemented on Pemba island through a local NGO and in the mainland, the project is implemented in Chololo village near Dodoma with national organizations such as the Tanzanian Organic Agriculture Movement (TOAM). Another project is located in the Uluguru mountains, in seven villages across Morogoro and Mvomero districts. Main activities of these projects include climate smart agriculture, water use efficiency, diversification and renewable energies. Cooperation with implementers of local projects in project districts has been sought during project preparation and partnerships with local NGOs such as TOAM have been initiated. In particular, local NGOs with implementation experience can become service providers for key interventions under this project. They can also play a key role in coordinating civil society and in supporting the development of a knowledge management system, including by creating websites and promoting the use of innovative information technology. Additional avenues for cooperation will be pursued during inception.

Coordination with other GEF-funded initiatives will also be pursued, as follows:

The project **Strengthening Climate Information and Early Warning Systems in Tanzania to Support Climate Resilient Development and Adaptation to Climate Change** (2013-2017, US\$ 4,500,000) funded by the LDCF and implemented through UNDP and the Tanzania Meteorological Agency (TMA). This project aims to provide more technologies to reinforce capacity of the national early warning network to better anticipate and respond to extreme climate events. The project includes substantive investment in the agro and hydro meteorological capacity of the country, both in terms of observation infrastructure and in terms of scientific and technical capacity. Coordination with this project will be sought to raise awareness of smallholder farmers on the utility and usability of agro-meteorological forecasts and information in their livelihoods.

Securing watershed services through Sustainable Land Management in the Ruvuand Zigi catchment, Eastern Arc Region. This project, while not in the same area as the proposed EBARR, is implemented through UNDP-GEF (3,648,858 US\$). Cooperation between the two projects will include sharing of information on land degradation, climate smart agriculture, as well as options for restoring ecosystem services at the watershed level. Methodologies and scientific data will be shared, and co-implementation of targeted activities will be explored through VPO coordination.

Sustainable Land Management of Lake Nyasa Catchment in Tanzania (UNEP-GEF, \$1,298,980). This project, which is under preparation, will also share information and knowledge on methodologies, and in particular on the state of catchment-level ecosystem services in the targeted area. The project will also coordinate with the similar **Kihansi Catchment conservation and management project** implemented through WB-GEF, which can deliver useful information on catchment-based management approaches.

On aspects related to reducing deforestation, the project will also seek collaboration with the project named **Mini-Grids Based on Small hydropower sources to augment rural electrification**. In particular, this UNIDO-supported project could provide useful avenues for creating incentives at local level for local energy production, particularly in a context where ecosystem management of upper watershed areas can help conserve water bodies and hence to generate energy for local consumption.

The project will also coordinate with the the “**Developing Core Capacity to Address Adaptation to Climate Change in Productive Coastal Zones**”, which is coordinated through the VPO and is expected to contribute to creating a level of institutional capacity among the key ministerial stakeholders in terms of vulnerability assessment, climate risk management and adaptation planning.

Given that coordination among the various adaptation-related initiatives is a key feature of this project, namely through the creation of an adaptation knowledge management system, the project will dedicate resources towards the identification and mapping of relevant initiatives and the integration of their lessons, data and information, into a comprehensive knowledge platform (Component 1). It is expected that VPO, as lead for coordination on climate adaptation issues, will take a lead role in gathering partners and contributors to this platform.

Finally, the project will also pursue close collaboration with the Tanzania child-project under the regional Integrated Approach Program for Food Security, also funded by GEF. Under this program, the Tanzania sub-project (7.1 million US\$) is currently under design. It comprises of three components: one focusing on ecosystem services, another on knowledge and monitoring services, and a third focusing on the strengthening of rural food value chains in the drylands with a strong focus on livestock. With the exception of Dodoma, the IAP project does not operate in the same project sites as this initiative. However, there may be some similarities between the interventions being proposed; since both projects are to be coordinated by the VPO, options for cost-sharing and joint delivery will be explored once the IAP project is formulated. In addition, this initiative will make linkages between the AKMS (Outcome 1) and the regional project under the IAP, which promotes joint monitoring and assessment and the sharing of methodologies under a South-South approach.

Additional Information not well elaborated at PIF Stage:

A.7 Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

Environmental Benefits: The activities planned under each component of the proposed project will contribute to various global environmental benefits (GEBs). As mentioned previously, GEBs will include climate change mitigation, the conservation of biodiversity and the prevention from land degradation. In the case of climate change mitigation, the project will implement participatory resilience and seasonality-based, land use and management plans in order to establish enclosure and no-take zones to support natural regeneration of degraded areas. In addition, the rehabilitation of rangeland, watersheds and riverbanks will reduce the pollution of lands and water supply. The project interventions in rehabilitating land and forests should thus lead to the conservation of globally significant biodiversity.

More specifically, the project should contribute to the:

- Reduction of land and soil degradation;
- Improvement of soil fertility, leading to improved agro-forestry and climate-smart production;
- Mitigation of the effect of droughts and floods;
- Improvement and potentially the increase of biodiversity, and;
- Increase of water availability and supply;

These environmental benefits will be monitored through participatory M&E in each project site and recorded in the AKMS, which will promote sustainability and upscaling of EbA, building a body of evidence that can be used for long term monitoring.

Adaptation benefits: The adaptation benefits of this project include: 1) rehabilitated ecosystems (3,000 ha of forest and 6,000 ha of rangeland will be rehabilitated and sustainably managed); 2) gains in agro-ecological productivity and climate resilient agricultural practices; 3) increased livelihood diversification and across-season income (at least a 15% increase in average annual income in each project site, attributable to interventions introducing alternative income-generating activities, such as beekeeping, efficient charcoal production (Output 2.4)); 4) increased biodiversity; 5) increased technical and institutional capacity at both local and national scales; and 6) an established adaptation knowledge management system (AKMS).

Socioeconomic benefits: Activities planned under each outcome will have socioeconomic benefits which will further support the above-mentioned environmental and adaptation benefits. The exact type and extent of benefits to materialize will of course depend on the specific Land Use Management Plans (LUMPs) and associated rehabilitation and livelihood activities to be identified (see outcome 2 in section A.1 above). The project anticipates the following in general terms:

- Increased income for beneficiary households from sustainable and resilient agricultural practices; (15% increase in all season income, maintained on the 4 following years, for smallholder farmers/HH, among which 40% are female-headed households). This is included in the logframe as general indicator of socioeconomic (as well as adaptation) benefits.
- Restored/improved ecosystem services (3000 ha of forest (500 ha per district), 6000 ha of rangeland (1000 ha per district) rehabilitated and under sustainable and climate resilient management). In addition to derived effects e.g. on water availability and reduced disaster risk this will also directly improve the natural resource base from which to generate income economic activities (e.g. Non-timber forest products, bee keeping etc.)

- Changed land use management based on LUMPs. While not yet finally identified in each community, the expected land use management changes is anticipated to lead to a range of socioeconomic benefits. E.g. water conservation measures may lead to reduced time needed by villagers (typically women and children) in fetching water and no or low tillage practices could mean saved costs in paying a service provider to till the land and/or more productive use of work time that can free human resources for other activities.
- Livelihood diversification activities. Beyond the increased and more diversified income opportunities generally offered from introducing new livelihood activities (e.g. bee keeping, non timber forest products, handicraft production etc.), efforts to improve value chain for existing livelihood activities (e.g. livestock sector) has the potential to create job opportunities beyond the immediate beneficiaries.

As mentioned, the specific activities to be pursued in each community (and by extension exact mix of socioeconomic benefits to be generated) depends on the participatory process to take place as part of activities under outcome 2 and cannot, therefore, be known upfront. To fully capture this important element, additional socioeconomic indicators (along the lines indicated above) will be identified in each target community as part of the LUMP process. Finally, since the activities are designed to be gender-sensitive, any socioeconomic benefits generated will support gender equity and indicators will be disaggregated by gender, as the project will target least 40% women, 40% men, and 20% shared between youth and elders for each activity

A.8 Knowledge Management. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

The project will develop an knowledge management system to support adaptation decision making at all levels, and will serve as a key mechanism not only for the replication and upscaling of the sound approaches identified, but also for sharing knowledge and coordinating interventions among ongoing projects. The adaptation knowledge management system (AKMS) will enable the government and other stakeholders to share information on adaptation, vulnerability, projects and technologies using an online platform and a GIS-based system. Within Component 2, information gathered during the participatory VIAs will be submitted for integration into the AKMS, hence enabling the monitoring of the evolution of vulnerability in the same sites across time, and it will also complement the existing data on VIA within PROVIA resources. Finally, the AKMS will record data from participatory monitoring conducted within communities during the project duration.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

Tackling environmental-related problems (including climate change) has remained among the top priorities in Tanzania. Since the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in 1996 and the Kyoto Protocol in 2002, the Government of Tanzania in collaboration with development partners has undertaken a number of initiatives to integrate climate change concerns in national policies and development plans. Some of the initiatives include development of the National Adaptation Programme of Action (NAPA) in the year 2007 (Zanzibar Adaptation Plan of Action-ZAPA), National Strategy for Growth and Reduction of Poverty (NSGRP/MKUKUTA II-2011/2015 and MKUZA-II strategy for Zanzibar), the National Development Vision 2025 (Zanzibar Development Vision 2020), the National Adaptation Strategy and Action Plan of 2009, the National Climate Change Strategy (NCCS)

and the National Strategy/Framework for Reducing Emissions from Deforestation and Forest degradation (National REDD Strategy 2009).

The Tanzanian NAPA (for Tanzanian mainland) and ZAPA (for Zanzibar) were prepared with the primary objective of identifying and promoting activities that address urgent and immediate needs for adapting to the adverse impacts of climate change in the country. In the development of the NAPA and ZAPA, key adaptation options and strategies that would best address vulnerabilities in major sectors such as agriculture water, health, energy, wildlife and forestry were developed (e.g. Tanzania Agriculture Resilience Plan 2014-2019). More specifically, the project is aligned with NAPA's priority project on improving food security in drought-prone areas by promoting drought-tolerant crops, which targeted Shinyanga and Dodoma regions.

The proposed EBARR project is also consistent with the ending Second National Strategy for Growth and Reduction of Poverty II in Tanzania (NSGRP II) – MKUKUTA II in its Kiswahili acronym). MKUKUTA II was a medium term framework (2010-2015) that translated Vision 2025 aspirations into measurable broad outcomes organized under three clusters namely Cluster I: Growth for Reduction of Income Poverty which include ensuring food and nutrition security, environmental sustainability and climate change adaptation and mitigation; Cluster II: Improvement of Quality of Life and Social Well-being; and Cluster III: Governance and Accountability. MKUKUTA II recognizes inter-sectoral linkages and synergies as well as the need to address vulnerability, human rights and social protection issues. Therefore, under MKUKUTA II, sector policies and strategies were linked through the operational targets and Action Programmes⁴⁵.

In line with other development projects, plans and programs across sectors in Tanzania, the EBARR is consistent with the Tanzania Development Vision 2025 and the Zanzibar Development Vision 2020. Implementation of the Tanzania Development Vision 2025 (i.e. becoming a Middle Income Country) is guided by the Long Term Perspective Plan (LTPP) of 2012 and the Tanzania Five Year Development Plan (TFYDP) of 2012⁴⁶. The LTPP reviews environment and climate change issues in the context of their negative impact on development while the TFYDP notes a considerable number of risks to the development of industry and the cost to GDP that may be due to climate change, and recommends mitigation and adaptation measures as well as the creation of a financial framework.

In 2012 Tanzania released the National Climate Change Strategy (NCCS of 2012) to address both mitigation and adaptation in the context of the existing national and international frameworks. To address mitigation-related issues, the Tanzanian government also developed the National REDD+ Strategy based on the National Framework for REDD+ developed in 2009. The main goal of the strategy is to facilitate effective and coordinated implementation of REDD+ related policies, processes and activities so as to contribute to climate change mitigation/adaptation and overall sustainable development⁴⁷.

The EBARR project is in conformity with the National Environmental Policy of 1997 and several other sectoral policies that are developed to address various environmental conservation matters so as to sustain healthy and functioning environments and ecosystems in Tanzania. In general, the National Environmental Policy of 1997 provides the framework needed to mainstream environmental considerations into decision-making, guidelines to help determine priority actions, as well as monitoring and reviewing of policies, plans and programmes in the country.

Some of the sectoral policies to which implementation of the EBARR project will conform include the National Forest Policy of 1998, National Land Policy of 1995, National Agriculture Policy of 2013, National Livestock Policy of 2006, National Energy Policy of 2003, National Human Settlements Development Policy of 2000, National Population Policy of 2006, National Water Policy of 2002 and the National Wildlife Policy of 2007.

The Tanzanian National Forest Policy of 1998 aims at guiding sustainable conservation and management of forest resources in Tanzania. The ultimate goal of the policy is to ensure sustained functioning forest ecosystems capable of

⁴⁵ http://www.climatechange.go.tz/?page_id=26

⁴⁶ <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/tanzania/>

⁴⁷ <http://thereddesk.org/countries/plans/national-strategy-reduced-emissions-deforestation-and-forest-degradation-redd>

supporting livelihood of the rural poor from various forest products (e.g. firewood, mushrooms, honey, medicine, food, etc). At the national level, healthy forest ecosystems support the national economy through tourism, timber, hydro-electric power, water supply, etc. Similarly, the National Land Policy of 1995 advocates for the protection of land resources from degradation by addressing issues related to land use planning, proper management of land resources, land resource sharing, and promote multiple land use techniques in conflicting land uses, as well as involving communities in resource management, land uses and conflict resolution.

The project also supports the National Agriculture Policy of 2013, which aims at promoting agricultural practices that sustain the environment by improving adaptation measures to climate change (Tanzania Agriculture Resilience Plan 2014-2019), public awareness on sustainable agriculture and enforcing relevant environmental laws and regulations. As aforementioned, Tanzania has also the National Livestock Policy of 2006, which recognizes that increased livestock population and human activities related to livestock production have resulted in over exploitation of natural resources, soil erosion and land degradation. Thus, the policy seeks to strengthen technical support services on environmental issues, promote proper land use planning for livestock production and strengthen inter-sectoral coordination on environmental issues.

Regarding the use of different energy sources to reducing emission of GHGs in Tanzania, the National Energy Policy of 2003, stresses the use of renewable and alternative energy sources such as wind, solar, mini-hydropower generators and use of liquefied petroleum gas (LPG) as well as natural gas. The National Energy Policy encourages use of alternative energy sources such as biogas, briquettes both for domestic and industrial uses to minimize the use of charcoal and firewood and ultimately prevent massive deforestation.

The National Climate Change Communication Strategy aims at facilitating effective communication on climate change information at national and lower levels linking to regional and international communication strategies in order to enhance management of climate change impacts and explore associated opportunities.⁴⁸ The EBARR is in conformity with this communication strategy, namely through Component 1 (see below), which aims at developing an Adaptation Knowledge Management System to respond to the need for reliable communication channels and information flows.

The proposed project is also in line with the process and roadmap for formulating national adaptation plans (NAPs) for Tanzania, which was launched in July 2015 and aims to “address the country’s medium- and long term adaptation needs by mainstreaming climate risks into all sector-specific and national development planning, as well as to reinforce coordination, and promote evidence-based decision-making in order to facilitate adaptation planning”⁴⁹. The NAP process is also coordinated by the VPO and work is underway to develop the Roadmap and the stocktaking assessments. It is expected that this exercise will form a key contribution to the AKMS which is proposed under component 1. Once the AKMS is implemented, the VPO will integrate the AKMS and its steering committee within its regular budget allocations, in order to ensure its continued relevance within the ongoing national adaptation plans (NAPs).

Finally, the project supports Tanzania’s Intended Nationally Determined Contributions (INDCs), which goal is to place Tanzania on a climate resilient development pathway, by reducing climate related disasters from 70% to 50% and impacts from frequent droughts and floods. More specifically, the intended contributions target the following sectors: agriculture, livestock, forestry, energy, costal, marine environment and fisheries, water resources, tourism, human settlements, and health sectors. Increasing yields through sustainable land practices, such as climate-smart agriculture, protecting farmers through crop insurance, and strengthening capacity of agricultural research institutions and extension workers to target climate actions are some examples of Tanzania’s INDCs in the agricultural sector.

⁴⁸ National Climate Change Communication, 2012-2017

⁴⁹ <http://www.adaptation-undp.org/laying-foundations-nap-process-tanzania>

C. DESCRIBE THE BUDGETED M & E PLAN:

Type of M&E activity	Responsible Parties	Budget US \$ (Excluding project team staff time)	Time frame
Inception workshop	<ul style="list-style-type: none"> • PM • UNEP 	-	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> • PM 	-	One month after Inception Workshop
Baseline assessment	<ul style="list-style-type: none"> • PM 	\$30,000	Two months after Inception Workshop
Measurement of means of verification for project progress on output and implementation	<ul style="list-style-type: none"> • Oversight by Steering Committee (UNEP, VPO) • PM 	-	Annually prior to PIR and to the definition of annual work plans
Project Implementation Review (PIR)	<ul style="list-style-type: none"> • UNEP 	-	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> • PM • UNEP 	-	Quarterly
Audit	<ul style="list-style-type: none"> • Private firm 	\$20,000	Annually from Year 2
MTR	<ul style="list-style-type: none"> • UNEP TM manages • UNEP Evaluation office 	\$30,000	At the mid-point of project implementation.
Terminal evaluation	<ul style="list-style-type: none"> • UNEP Evaluation office with UNEP 	\$30,000	At least three months before the end of project implementation
Project terminal report	<ul style="list-style-type: none"> • PM 	-	On completion of the terminal evaluation, maximum of three months after the end of the project
Visits to project sites	<ul style="list-style-type: none"> • UNEP • M&E Specialist • PM • PSC representatives 	-	Yearly
TOTAL indicative COST		US \$110,000	

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies⁵⁰ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Brennan Van Dyke Director, GEF Coordination Office, UNEP		May 30, 2016	Barney Dickson, Head, Climate Change Adaptation Unit, UNEP-DEPI	+254-20-762-3545	barney.dickson@unep.org

⁵⁰ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF
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ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Overall Goal: Building resilience of rural communities						
Project Objective: Increasing resilience to climate change in rural communities of Tanzania by strengthening ecosystem resilience and diversifying livelihoods						
Outcome/Outputs	Indicator	Baseline	Midterm Target	End of project Target	Means of Verification	Risks (R) & Assumptions (A)
Component 1. Capacity to adapt to climate change through EbA approaches.						
<i>Outcome 1. Improved stakeholders capacity to adapt to climate change through EbA approaches and undertake resilience building responses</i>	<i>Number of AKMS users who report strengthened capacity to plan for adaptation</i>	0	<i>Up to 10% of AKMS users are reporting strengthened capacity to plan for adaptation by mid-term</i>	<i>Up to 30% of AKMS users are reporting strengthened capacity to plan for adaptation by end of project</i>	<i>AKMS surveys, reports</i>	<i>R: The individuals trained or institutions are not empowered enough to influence the project implementation. A: Stakeholders are interested in improving adaptation planning through learning and using the AKMS.</i>
<i>1.1 A GIS-based adaptation knowledge management system (AKMS) that supports planning</i>	<i>Existence of a fully operational GIS-based adaptation knowledge management system (AKMS)</i>	0	<i>Structure and organization of the AKMS are in place by mid-term</i>	<i>The AKMS is fully operational and used by multi-stakeholder partners by end of project</i>	<i>Project website, reports, consultations</i>	<i>R: Limited continuous stakeholder engagement in populating and updating the AKMS (governments, donors, NGOs, CSOs, private sector) A: The AKMS is a web-based adaptation tool providing immediate benefits for stakeholders planning climate change adaptation activities and baseline data on EbA</i>
1.1.1 Design and develop the basic structure of the knowledge management system utilizing available open source tools						
1.1.2 Form a cross-sectoral multi-stakeholder group to support the management and maintenance of the knowledge system and its use for adaptation planning						
1.1.3 Verify the data produced by the stakeholders and identify capacity gaps and opportunities for collaboration on all levels						
1.1.4 Identify currently available data in GIS format and additional data needs for planning appropriate climate change responses						
1.1.5 Provide annual recommendations on gaps and needs for adaptation planning and programming based on findings from the knowledge system						
<i>1.2 Training and guidance provided to a cadre of knowledgeable resource persons on ecosystem-based adaptation</i>	<i># of people trained</i>	0	<i>At least 50 people per district, among which half are women, by mid-project</i>	<i>At least 1500 people trained: 100 people per district (over 5 Districts), among which half are women, by end of project</i>	<i>training reports, surveys</i>	<i>R: Individual capacity may not be sufficient to lift any remaining institutional barriers to the broader dissemination of EbA A: The government continues to support, through VPO leadership, EbA as a viable adaptation approach.</i>
1.2.1 Develop ToT training material on ecosystem based adaptation approach						
1.2.2 ToT training for VPO staff, National climate change steering committee and working groups members, climate change and disaster management focal points in relevant ministries						
Component 2. EbA for rural resilience						
<i>Outcome 2. Increased resilience in project sites through demonstration of EbA practices and improved livelihoods</i>	<i>Vulnerability Index as measured by Vulnerability and Impacts Assessments (VIAs)</i>	0	<i>N-A</i>	<i>a 45% reduction in vulnerability of beneficiaries in project sites, among which 40% are female-headed households, by end of project</i>	<i>VIAs will be conducted during year 1 of project, and monitored annually through participatory M&E</i>	<i>R: perception-based vulnerability indexes may be insufficient in revealing changes in resilience. A: A similar methodology can be used and repeated at various milestones during the project.</i>
<i>2.1 Local authorities, committees and user groups trained on adapting communities to climate change using EbA.</i>	<i>Number of people trained in EbA to adapt to climate change</i>	0	<i>At least 30 people per district trained on EbA among which half are women, by mid-project</i>	<i>At least 300 people trained: 60 people per district (over 5 Districts) trained on EbA among which half are women, by end of project</i>	<i>Project reports; List of participants to training (by gender) Training reports, training manuals</i>	<i>R: Local authorities, committees and user groups are not engaged in EbA approaches. A: Local authorities, committees and user groups will learn adaptation through EbA approaches and improve their practices and livelihood strategies.</i>
2.1.1 Training (ToT) on climate change vulnerability assessment (including disaster risk) and EbA/adaptation planning for local authorities, committees and user groups						
<i>2.2 Locally-specific climate change vulnerability, risks and adaptation options are identified by local stakeholders.</i>	<i>Number of Vulnerability and Impacts Assessment (VIAs) conducted</i>	0	<i>1 VIA conducted per district, that identifies adaptation options</i>	<i>N-A</i>	<i>Activity reports, VIAs, maps</i>	<i>R: Communities do not feel engaged in conducting VIAs A: The benefits of VIAs are explained to communities and seen as a useful tool to identify adaptation options.</i>
2.2.1 Undertake participatory Climate Change Vulnerability and Impact Assessments in project sites using guidelines for VIA under PROVIA and identify recommended adaptation actions						
2.2.2 Develop a diagnostic and indicators of climate-change affected ecosystem services, based on recognized methodologies for measuring ecosystem services such as the UNEP-WCMC Toolkit						

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2.2.3 Establish a map of drought, flood, pest and diseases risk zones (baseline and climate change scenario) in selected sites and incorporate results to knowledge management system						
2.2.4 Assess the physical and socio-economic impacts of climate change on selected project sites and incorporate results to Output 1.2.						
2.3 Ecosystem services are rehabilitated through the implementation of EbA practices (ecosystem rehabilitation, sustainable management and conservation of natural resources)	Number of hectares of forest and rangeland rehabilitated and under sustainable and climate resilient management	0	1500 ha of forest (250 ha per district), 3000 ha of rangeland (500 ha per district) rehabilitated and under sustainable and climate resilient management, by mid-project	3000 ha of forest (500 ha per district), 6000 ha of rangeland (1000 ha per district) rehabilitated and under sustainable and climate resilient management, by end of project	project reports, land use plans, surveys, field observations	R: Communities are not willing and able to participate in ecosystem restoration and activities improving livelihoods A: Local authorities and communities are engaged in EbA thanks to training and successful information sharing through the AKMS
2.3.1 Develop new, resilience and seasonality based, land use and management plans with communities						
2.3.2 Establish, through consultations with local communities, exclosure and no-take zones to support the natural regeneration of degraded areas						
2.3.3 Undertake rangeland rehabilitation in 6,000 ha						
2.3.4 Undertake watershed rehabilitation and reforestation, using local species, in 3,000 ha						
2.3.5 Undertake riverbank rehabilitation in areas (X, Y, Z) along X meters (to be determined during inception)						
2.4 Income is increased and maintained across seasons, through sustainable and resilient livelihoods	Number of people reporting a sustained increased income from alternative IGAs introduced by the project, among which a percentage are female-headed households	0	Targeted communities are reporting a 5% increase in all season income, among which 40% are female-headed households, by mid-project.	Targeted communities are reporting a 15% increase in all season income, maintained on the 4 following years, for smallholder farmers/HH, among which 40% are female-headed households, by end of project	Annual reports on production numbers for each value chain, per district; Project reports; Producer surveys	R: Targeted communities are too risk-averse to try adopting alternative activities. A: Communities are willing and able to adopt climate smart agricultural practices and activities improving livelihoods
2.4.1 Implement climate smart agricultural practices, including conservation-based irrigation, water harvesting, crop rotation, etc.						
2.4.2 Improve resilience of current livelihoods and introduce alternative, income-generating, climate resilient livelihood activities for vulnerable groups, particularly women (livestock value chain, beekeeping...)						
2.4.3 Introduce and promote efficient cooking stoves and efficient charcoal production technologies to reduce pressures on forest resources						
2.4.4 Training and support to LGAs, extension services and key producer groups on resilient livelihoods						
Component 3. Knowledge management on climate change adaptation and upscaling.						
Outcome 3. 3. Strengthened information base on EbA supports an upscaling strategy	Availability of an exit and upscaling plan at the end of the project	0		One documented and agreed exit/upscaling strategy is approved at the end of the project	Project reports, Information products	R: Stakeholders do not agree on the lessons learned and upscaling plan. A: Information base on EbA is disseminated and benefits targeted audiences leading to action.

<p>3.1 Project lessons, knowledge on Climate change adaptation and resilient livelihoods using ecosystems captured, stored and widely disseminated</p>	<p>Number of information products distributed by the end of the project</p>	<p>0</p>	<p>At least 10 information products developed</p>	<p>At least 15 information products disseminated</p>	<p>Project reports, Information products</p>	<p>R: The majority of stakeholders maintain business-as-usual approach or have improved attitudes but do not take action. A: Information products are developed with and for specific target groups to ensure utilization.</p>
<p>3.1.1 Document best practices, applicable technologies, success stories to inform policies and adaptation planning, linked to the knowledge management system in Outcome 1</p>						
<p>3.1.2 Develop and disseminate practical and applied training and communication material for different target audiences (policy decision makers, planning, agricultural advisory services at local level) using print, radio and social media</p>						
<p>3.1.3 Undertake participatory monitoring of ecosystem services, project indicators and livelihoods</p>						
<p>3.1.4 Develop a sustainability and upscaling strategy using lessons learned through project implementation.</p>						

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

Comments	Responses
Comments from Germany	
According to the project framework, Component 2 seeks to reduce vulnerability through demonstration and implementation of Ecosystem-Based Adaptation (EbA) measures. Nevertheless, the majority of activities currently described under this component seem to focus on capacity building through training as well as on vulnerability and impact assessments which contribute to the expected outcome of component 1. Germany therefore suggests providing some further detail on how the demonstration of EbA practices will be promoted and implemented in order to reach the expected outcome of vulnerability reduction.	Outcome 2 was modified to include more demonstrations of EbA practices through outputs 2.3 and 2.4. The development of new, resilience and seasonality-based land use and management plans in consultation with communities will lay the groundwork for the following EbA demonstrations: natural regeneration of degraded areas through the establishment of exclosure and no-take zones; rangeland rehabilitation and reforestation, climate-smart agriculture practices will all contribute to a targeted 45% reduction in vulnerability of beneficiaries (Outcome 2).
Germany appreciates the explicit focus on knowledge management (component 3). On the proposed “comprehensive awareness raising programme” we kindly ask to further clarify its exact aim, target audience and relation to the activities of components 1 and 2 as its current scope seems to be rather ambitious (“generate the critical mass (...) to truly leverage resilience throughout the country”) given the allocated amount of funding	The knowledge and information products developed under Component 3 will be directly linked to activities undertaken in Outcome 1 on building the Adaptation Knowledge Management System. The AKMS will become the focal point to record and consult lessons learned, best practices from activities undertaken in Outcome 2.
Comments from the United States Council	
Expand on how the multi-sectoral national committee proposed under Component 1 will function, including by: <ul style="list-style-type: none"> - Providing more details on the expected committee representation and describing how the committee will engage with local governments and stakeholders; - Providing more details about the expected deliverables from the national committee, including the modalities for how the national dialogue will provide support to expand local capacity to adapt to climate change; and - Clarifying how the national committee will ensure coordination between the vice president’s office, key government ministries and other stakeholders mentioned in section A.2. 	The output was reformulated during the project design. A project steering committee will be in charge of structuring and organizing the Adaptation Knowledge Management System (AKMS). Please refer to Section 3.2 of the project document or CEO’s Part II, A.1.3 for more information.
- Focus outreach related to all three components towards education institutions at all levels, including schools and colleges, which were not included in the list of key stakeholders provided under section A.2; and	Educational organizations have been added to the list of stakeholders. The project will attempt to link up with Universities who can contribute valuable knowledge and expertise. The project will develop sub-contracting agreements with national institutions whose excellence is recognized in the field of climatology, agriculture, and climate change adaptation policies (such as the Institution of Resource Assessment at the University of Dar es Salaam) in order to deliver specific outputs or activities.
- Provide more information on the development and implementation of the comprehensive awareness raising program and up-scaling strategy in Component 3, particularly in regards to how lessons from Component 2 will inform actions in other regions.	The upscaling and communications strategies have been detailed further . Please refer to the Project Document, Sections 3.9 and 3.10.
In addition, we expect that UNEP in the development of its full proposal will : <ul style="list-style-type: none"> - Provide more information on how beneficiaries, including 	There requests have been fulfilled in the design of the project. <ul style="list-style-type: none"> - Local stakeholders were involved in the design of the project during inception mission through focus group discussions to

Comments	Responses
<p>women, have been involved in the development of the project proposal and will benefit from this project;</p> <p>- Engage local stakeholders, including community-based organizations, environmental NGOs, and private sector institutions, in both the development and implementation of the program, when appropriate; and,</p> <p>- Clarify how it will identify target audiences and communicate the project's results, lessons learned, and best practices to stakeholders during the preparation and implementation of the project as well as after the project's completion.</p>	<p>learn about their livelihoods. Particular attention was devoted to hearing women, youth and elders' voices. Furthermore, community engagement has been and will be promoted during project implementation in order to increase local ownership of the project, hence increasing its direct benefits on communities. Please refer to the Project Document for more information.</p> <p>- CBOs, NGOs and private sector institutions were also present during the inception mission to contribute to the design of the project and will be part of the implementing actors for certain activities (please refer to Section 5 of the Project Document).</p> <p>- This project will develop a strategy for public awareness and communications, emphasizing the importance of learning by doing. Indeed, the participatory climate change vulnerability and impacts assessment will engage local authorities and communities in identifying risk zones for drought, flood, pest and diseases and climate adaptation actions. In addition, participatory monitoring during the project implementation will also contribute to learning from ongoing activities and to identify best practices (Component 3).</p>
COMMENTS FROM GEF	
<p>By CEO Endorsement, please clarify further the targeting principles for the proposed project. Whereas Component 2 would aim to reduce vulnerability in four rural districts in the central plateau and Zanzibar, Section A.1.2 of the PIF describes a baseline scenario for six districts and Zanzibar.</p> <p>Moreover, Component 1 introduces many activities that are relevant for Tanzania's NAP process. By CEO Endorsement, the project's contributions towards the preparation of the NAP process could be discussed explicitly.</p>	<p>The site selection has been clarified and approved by the VPO and includes 5 districts (4 in the mainland and 1 in Zanzibar). Please refer to Project Document Section 2 and CEO endorsement: Part II, Section A.</p> <p>Component 1 has been reformulated since the PIF. Relevance and contribution of this project to Tanzania's NAP process is detailed further in Section 3.1 of the Project Document.</p>

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵¹

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF:			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
International consultants	50,000	26,156	11,000
Local consultants	25,500	0	25,500
Travel	7,500	2,661	4,839
Meetings and conferences	16,000	9,394	6,606
Communications	1,000	0	1,000
Total	100,000	38,211	48,945

⁵¹ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

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

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