
Transformational Adaptation for Climate Resilience in Lake Chilwa Basin of Malawi (TRANSFORM)

Part I: Project Information

GEF ID

10777

Project Type

FSP

Type of Trust Fund

LDCF

CBIT/NGI

CBIT No

NGI No

Project Title

Transformational Adaptation for Climate Resilience in Lake Chilwa Basin of Malawi (TRANSFORM)

Countries

Malawi

Agency(ies)

UNDP

Other Executing Partner(s)

Ministry of Forestry and Natural Resources

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Least Developed Countries, Climate resilience, Influencing models, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Stakeholders, Communications, Awareness Raising, Public Campaigns, Type of Engagement, Information Dissemination, Partnership, Beneficiaries, Civil Society, Non-Governmental Organization, Community Based Organization, Local Communities, Private Sector, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, SMEs, Capital providers, Gender Equality, Gender Mainstreaming, Women groups, Capacity, Knowledge and Research, Enabling Activities, Capacity Development, Knowledge Generation, Learning, Adaptive management, Innovation, Knowledge Exchange

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

60 In Months

Agency Fee(\$)

419,540.00

Submission Date

3/23/2021

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1	LDCF	580,000.00	6,451,000.00
CCA-2	LDCF	3,836,210.00	15,000,000.00
	Total Project Cost (\$)	4,416,210.00	21,451,000.00

B. Indicative Project description summary

Project Objective

To reduce the vulnerability of communities surrounding Lake Chilwa to the adverse effects of climate change by strengthening the resilience of livelihoods through Ecosystem-based Adaptation (EbA) and financing of climate-resilient enterprises in Lake Chilwa, and scaled up to other regions of Malawi.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
3D1. Enhancing financing and investment in adaptation options and climate-resilient enterprises in the Lake Chilwa basin, with potential for upscaling to other regions of Malawi.	Investment	1. Enhanced public and private sector investment in and strengthened market linkages for upscaling sustainable, climate-resilient enterprises to provide communities with alternative sources of income.		LDC F	705,914.00	2,829,524.00

1.1 A sustainable climate-finance facility (SCFF) established to stimulate public and private sector investment for MSMEs, with a new CCA funding window opened under the MICF, as well as provision of technical assistance and strengthening of the micro-finance industry for innovation in climate-resilient livelihoods, enterprises and technologies.

1.2. Partnerships established between communities, extension services, CBOs, farmers, buyers and private sector enterprises, including through the development of a market information hub and the introduction of technologies that will increase access to, and strengthen, high-value markets.

1.3 Technical assistance provided to the Malawi National Climate Change Fund (NCCF) to integrate and implement the SCFF initially introduced through the MICF.

2. Implementation of EbA and sustainable climate-resilient livelihoods.	Investment	2. Reduced vulnerability of communities in target districts to climate change through the implementation of EbA interventions and the introduction of innovative sustainable	2.1. An EbA Plan – with an integrated management framework – that identifies climate change vulnerability and ecosystem degradation hotspots – developed for entire Lake Chilwa Basin, building on Watershed Management Plans (WMP	LDC F	3,000,000.00	14,000,000.00
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climate-resilient livelihoods in preparation for scaling up through Outcomes 1 and 3.

s) developed for each target district under the SFAD-WM[1] project.

2.2. Community-based Ecosystem Monitoring and Reporting (M&R) System established in each target district to support enhanced natural resource management and compliance with environmental regulations.

2.3. Technical capacity of communities, extension services, CBOs, farmers, buyers and private sector enterprises enhanced, to identify and prepare climate-resilient business plans and project packages that are financially viable, for support from the SCFF established under Outcome 1.

2.4. Sustainable climate-resilient livelihoods implemented in target communities through the provision of training (including at least 50% women), provision of start-up inputs (such as beekeeping equipment) as well as the development of partnerships with local suppliers and value chain service providers (through technical advisory services).

[1] For detail on this project – entitled '*Malawi-climate resilient and sustainable capture fisheries, aquaculture development and watershed management project (SFAD-WM)*' – and its alignment with TRANSFORM, please refer to Section 1a. Project Description (subsection entitled 'Baseline scenario and associated baseline projects').

3. Strengthening the enabling environment for upscaling of initiatives aimed at climate-resilient development across Malawi.	Investment	3. Strengthened enabling environment for district- and community-level institutions to plan, implement and monitor Ecosystem-based Adaptation (EbA), in readiness for receiving funding under the SCFF	LDC F	500,000.00	3,600,000.00
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3.1 Knowledge management hub established to enable documentation and dissemination of best practices on EbA and livelihoods diversification, as well as market and product information.

3.2. National awareness programme – on EbA and climate resilient investment opportunities undertaken in collaboration with private sector.

3.3. Framework Climate Resilience Investment Plan (FCRIP) for sustainable climate-resilient livelihoods and value chains developed for each target district in Lake Chilwa Basin (as well as two other districts in different ecosystems), building on the the WMPs developed through the SFAD-WM project.

3.4. Guidance for locally-driven climate resilience investment planning developed and disseminated to all districts in Malawi.

Sub Total (\$)	4,205,914.00	20,429,524.00
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Project Management Cost (PMC)

LDCF	210,296.00	1,021,476.00
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Sub Total(\$)	210,296.00	1,021,476.00
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Total Project Cost(\$)

4,416,210.00

21,451,000.00

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Forestry and Natural Resources	In-kind	Recurrent expenditures	15,851,000.00
Recipient Country Government	Ministry of Finance	Grant	Investment mobilized	3,600,000.00
GEF Agency	UNDP	Grant	Investment mobilized	2,000,000.00
			Total Project Cost(\$)	21,451,000.00

Describe how any "Investment Mobilized" was identified

Co-financing for the proposed project was identified through discussions with Government of Malawi (GoM) agencies that will be responsible for the oversight and implementation of the project. Appropriate sources of co-financing were determined by an analysis of grant-funded activities in Malawi that are making development gains aligned with the objective of the project, and will subsequently enhance the impact of the project. Preliminary discussions were held with the institutions involved in these projects. Government recurrent expenditure was estimated based on the contributions that will be made by GoM institutions involved in implementing project activities. At the national level, the role of the Ministry of Forestry and Natural Resources staff in coordinating the project, and the technical involvement of other GoM departments and ministries – as well as private sector entities – were identified as in-kind co-financing contributions to the project. Co-financing was also identified within projects and programmes that directly contribute to the management of natural resources and addressing climate change risks to livelihoods and ecosystems in Malawi. Additional co-finance of US\$3,600,000 will be provided by the Ministry of Finance through through the ongoing FAO and WFP supported joint programme on natural resource management and Ecosystem-based Adaptation (EbA) in Malawi that will contribute to long-term, sustainable and climate-resilient adaptation solutions. UNDP cash co-financing (US\$2,000,000) will support project activities in a flexible manner to effectively complement the GEF climate funding across the components. More detailed analyses and confirmations will be made during the PPG stage, when additional sources of co-finance will also be sought. It is anticipated that co-financing from MICF will be leveraged for the capitalization of the fund established under Component 1. However indicative amounts from the partners will be confirmed during PPG phase.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	LDCF	Malawi	Climate Change	NA	4,416,210	419,540	4,835,750.00
Total GEF Resources(\$)					4,416,210.00	419,540.00	4,835,750.00

E. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

150,000

PPG Agency Fee (\$)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)	
UNDP	LDCF	Malawi	Climate Change	NA	150,000	14,250	164,250.00	
					Total Project Costs(\$)	150,000.00	14,250.00	164,250.00

Meta Information - LDCF

LDCF **false**

SCCF-B (Window B) on technology transfer

false

SCCF-A (Window-A) on climate Change adaptation

false

Is this project LDCF SCCF challenge program?

false

This Project involves at least one small island developing State(SIDS).

false

This Project involves at least one fragile and conflict affected state.

false

This Project will provide direct adaptation benefits to the private sector.

false

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs).

false

This Project has an urban focus.

false

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	%
Natural resources management	%
Climate information Services	%
Costal zone management	%
Water resources Management	%
Disaster risk Management	%
Other infrastructure	%
Health	%
Other (Please specify:)	%
Total	%

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise
false

Change in mean temperature
false

Increased Climatic
Variability

Natural hazards
false

Land degradation	Costal and/or Coral reef degradation	false	GroundWater quality/quantity
false	false		false

Core Indicators - LDCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries				
CORE INDICATOR 2				
Area of land managed for climate resilience (ha)				
CORE INDICATOR 3				
Total no. of policies/plans that will mainstream climate resilience				
CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained				

Part II. Project Justification

1a. Project Description

Country Overview

In Malawi, local communities are increasingly affected by climate change and variability. In recent decades, a range of climatic changes have been observed across the country, including: i) a reduction in average annual precipitation; ii) an increase in average annual temperatures of 0.9°C since 1960; iii) delays in the onset of the rainfall season; and iv) a decrease in the length of the rainfall season, and a longer dry season. These increasingly erratic climate conditions are experienced by local communities across the country who have reported that rainfall has become increasingly unpredictable, and that the rainy season has become delayed, inconsistent and short[1]. The 2011–2012 rainy season, for example, was expected to start in October/November of 2011, but instead only started in December and ended in February 2012 (short of the expected end in April). Moreover, the rainfall of this season was erratic and interrupted by frequent dry spells, which had a notable impact of natural resource-based livelihoods, shortening the growing season and reducing crop productivity [2]. Across Malawi, shifts in rainfall contribute to an increased frequency and intensity of climatic hazards such as droughts and floods. Indeed, there has already been an observed increase in drought occurrences since the 1980s[3], severely impacting a large proportion of the country's population. In a 2011 survey, 98% of farmers reported being affected by drought, and in 2016–17, approximately 6.5 million people (~40% of the country's total population) were directly affected by the adverse impacts of drought – particularly through a decline in food security[4]. In addition to droughts, several significant floods have also occurred across the country in recent years, with considerable impacts on the livelihoods of vulnerable communities. For example, flooding events in January 2012 and January 2013 washed away large volumes of soil and deposited debris on agricultural fields. These events also resulted in the loss of life, and damages to public and private property, as well as crops (totalling ~US\$73 million in damages). This led to knock-on effects for food security, and public health (due to an increased incidence of vector-borne diseases such as diarrhoea, cholera and malaria)[5].

In recent decades, the impacts of climate change have been intensified by the El Niño Southern Oscillation Cycle (ENSO). For example, in 2015, the most severe El Niño event in 35 years occurred, contributing to multiple droughts, as well as the country's most damaging flood in 50 years. The recovery and reconstruction requirements of economic sectors affected by the 2015 floods totalled ~US\$335 million (equivalent to ~5% of GDP at the time). Excluding housing, transport had the single largest financial need, at 32% of total recovery costs, followed by agriculture (16%), and water and sanitation (13%). The 2015 floods affected ~1.1 million people, displaced ~230,000 people and resulted in 106 deaths. Compounding the disaster, the onset of rains in 2015 was delayed by more than a month, which shortened the growing season and further impeded crop production and recovery in the years following the floods. This had a severely negative effect on the economy of Malawi because of its strong reliance on agriculture for economic growth and subsistence. Climate change is also increasing the frequency and intensity of tropical cyclones, which are intensifying such flooding. The most recent event in Malawi – Tropical Cyclone Idai – occurred in 2019, affecting approximately one million people[6][7]. The cyclone caused floods that affected multiple districts across the country, which led to damages and losses totalling ~US\$220 million. As a result, the Government of Malawi (GoM) had to spend ~US\$370 million for recovery, reconstruction and

rebuilding of resilience to disasters. While the direct impacts of extreme climate events are well documented, other negative effects of climatic change in Malawi are more challenging to quantify. These additional impacts include: i) an observed increase in outbreaks of pests and diseases since the 1970s[8]; ii) increasing levels of malnutrition [9],[10]; and iii) warmer temperatures making it increasingly difficult for farmers to work outside during the day, thereby reducing their ability to produce food.

Given the adverse impacts of climate change on natural resources, the sustainable development of Malawi – and therefore the wellbeing of its population – is increasingly being compromised. This is reflected by the country's low ranking (172 out of 189 countries) on the Human Development Index (HDI)[11] and high annual ranking on the Climate Change Vulnerability Index (CCVI)[12]. Malawi's vulnerability to climate change is caused by interconnected climatic and non-climatic phenomena. For example, environmental degradation is occurring in combination with demographic pressures such as high population growth, causing an overreliance by communities on the natural resource base, and consequently further degradation, a decline in their livelihood productivity, and therefore deepening poverty. The worsening socio-economic situation for many vulnerable Malawians is occurring despite the country's strong economic growth in recent years – particularly in its agriculture, energy, forestry, mining, industrial and services sectors. Many Malawians have not benefited from this economic growth because their livelihoods are primarily dependent on natural resources, which are being negatively impacted by the combination of environmental degradation and climate change.

imate change and environmental degradation in the Lake Chilwa basin

Although climate change impacts are occurring across Malawi, they are particularly severe in the Lake Chilwa basin and its catchment districts of Zomba, Phalombe and Machinga – the target areas of the proposed project. Listed as a Ramsar site in 1997[13], Lake Chilwa and its surrounding wetlands provide habitats for a wide diversity of bird, fish and other fauna and flora, and is accordingly an area of considerable conservation value. Lake Chilwa is also the second largest lake in Malawi and a source of livelihoods for ~1.5 million people who depend on the lake and its catchments for *inter alia* fish and other resources such as grass, reeds and non-timber forest products (NTFPs)[14]. The primary livelihood strategies in the area involve agriculture and fishing, both of which are natural resource-based and strongly dependent on the flow of ecosystem services such as nutrient cycling and regulation of the hydrological cycle. This dependence exacerbates Lake Chilwa communities' vulnerability to the impacts of climatic change[15]. Indeed, there is growing evidence of the adverse impacts of climate change on the lake's aquatic and surrounding terrestrial ecosystems, resulting in a considerable decline in biodiversity, with knock-on effects on the provision of ecosystem services underpinning communities' livelihoods.

Along with erratic rainfall – and the subsequent drought and flood impacts on communities and agricultural production described above – the primary impact of climate change in the Lake Chilwa basin over the past decades has been the general decline of the water level within the lake[16]. When the lake's levels decrease, fish stocks can take several years to recover, which disrupts fishing communities' livelihoods for extended periods[17]. A large proportion of women living in the basin are particularly vulnerable to drying of the lake, as fish processing – which is dependent on reasonably priced fish stocks – is their primary income-generating activity. A decline in fish stocks increases competition between fisherfolk and consumers for the remaining fish, driving up prices and reducing women's income potential from fish processing. In response to the unpredictability of Lake Chilwa's water levels and productivity, communities have developed diversified, mobile, and often unsustainable livelihoods – including charcoal production, which contribute to deforestation in catchment areas.

While Lake Chilwa has dried completely nine times in the last century (the last time in 2018), its capacity to recover from these events is decreasing[18]. Although refilling of Lake Chilwa can occur in as little as one year – such as in the 2014–2015 rainfall season – it normally takes approximately two to three years to refill[19]. However, this refilling of the lake is contingent upon the adequate infiltration of groundwater in its forested catchment areas, and the effective recovery of fish stocks depends on the management of remnant pools in the perennial rivers and streams that feed into the lake[20].

The abovementioned environmental degradation compromising Lake Chilwa's water levels and fish stocks include: i) deforestation; ii) degradation of wetlands – particularly when the receding water level exposes land on the lake's shores to crop and livestock production; iii) reduced flow of rivers; and iv) soil erosion which causes siltation of watercourses[21]. These phenomena have had a considerable impact on agriculture in the Lake Chilwa basin, with a general decline in productivity and production recorded in both the crop and livestock sectors in recent years. Agricultural decline – in conjunction with the lake's drying – is also contributing to a rapid decrease in the productivity of fisheries. This results from the growing inability of communities to produce adequate amounts of food from agriculture in areas surrounding the lake, which leads to the intensification of unsustainable land-use practices, and further degradation of the terrestrial environment. The consequent decline in crop yields causes an overdependence of local communities on fish from the lake and increases competition for other aquatic resources. For example, there has been an observed increase in the clearing of reeds in riparian and coastal areas of Lake Chilwa – which are critical fish spawning habitats[22] – further impacting the replenishment of fish stocks. Since the 1970s, catches in the lake have decreased considerably, from ~15,000 tonnes/yr to ~5,000 tonnes in 2014[23].

The slow recovery of fish stocks in recent years has also occurred in conjunction with an increase in the use of illegal fishing gear such as mosquito nets. The use of such indiscriminate equipment causes juvenile fish to be captured along with adults, thereby preventing juveniles from reaching maturity and therefore the size at which the maximum sustainable yield (MSY) would be obtained from the stock. Fish catches in Lake Chilwa comprise a large percentage of the total amount of fish caught within Malawi (~14% in 2003[24]). In addition, a large proportion of agricultural produce is sourced from the lake's catchment areas. For example, 50% of the rice produced in Malawi is grown in the Lake Chilwa basin. As a result, the decreasing productivity of agriculture and fisheries in the area is causing a rapid decline in food security both in the districts surrounding Lake Chilwa, and across Malawi[25]. This subsequent food insecurity will be exacerbated by further reduced water levels in the lake under future climate change scenarios. Climate projections under both RCP4.5 and RCP8.5 indicate further increases in average annual temperatures across the country, with mean annual surface air temperatures expected to rise by 1.1–3°C by 2060, and 1.5–5°C by 2090[26]. Additionally, despite an anticipated increase in total annual rainfall volume, the number of rainfall events is expected to decrease, but with considerable increases in the intensity of each episode and prolonged dry spells between episodes[27]. The frequency of droughts and floods is therefore expected to increase which will heighten the vulnerability of Malawi lake fisheries.

The water temperatures of lakes in Africa, including Lake Chilwa, are evidently also increasing. The full range of impacts of climate change on tropical lakes, however, are not well understood. Some research has indicated that the warming of the deep African rift lake, Lake Tanganyika, has reduced the cycling of nutrients from its depths as well as primary production in the water[28]. In the Lake Chilwa basin specifically, results obtained from the IPCC Fifth Annual Report General Circulation Models (GCMs) under RCP4.5 and 8.5 suggest that water temperatures will increase by an average of 2.6–4.7°C, with carbon dioxide levels in the lake expected to double by the year 2075[29]. These warming water temperatures combined with the abovementioned fluctuating water

levels already present in lake Chilwa, will exacerbate threats to the lake's productivity[30]. Under current climate change conditions, there is already a significant risk of ecosystem collapse in Lake Chilwa – particularly as a result of declining fish resources[31]. This not only exacerbates competition in fisheries as mentioned above, but also conflicts between traditional fisherfolk and newcomers to the area such as farmers who take up fishing. Climate change, therefore, will not only result in reduced fish stocks but also disrupt community relations, increasing the vulnerability of both subsistence farmers and fisherfolk[32].

Hot causes

Vulnerability to climate change impacts in Malawi and particularly in the Lake Chilwa basin is driven by *inter alia*: i) chronic poverty; ii) food and nutrition insecurity; iii) overdependence on natural resources; iv) high exposure to climate hazards and risks; v) ineffective early warning and disaster risk reduction systems; vi) inadequate climate shock preparedness and weak adaptive capacity of households to withstand recurrent shocks and stresses; viii) limited economic opportunities; and ix) inadequate provisioning of, and access to, social services. The combination of these factors makes the implementation of climate change policy frameworks in Malawi challenging. For example, limited production by the country's energy supplier – Electricity Generation Company Malawi Limited (Egenco) – has resulted in an increased demand for alternative energy sources. However, as 86% of the country's population are reliant on subsistence agriculture and fishing for their livelihoods they have limited financial capacity to source alternative, energy-efficient technologies for, *inter alia*, cooking and heating. To meet this demand, forest resources are used intensively for fuel wood and charcoal production, supplying both rural areas and urban centres. This, in turn, places pressure on forest and wetland ecosystems, leading to catchment degradation. At the national level, limited financial capital available for the GoM results in insufficient budgetary allocation for climate-adaptive technologies. This financial constraint is exacerbated by extreme climate events that result in severe damages and losses to infrastructure, exposing the GoM to cycles of debt and short-term, reactive spending. As a result, the GoM is severely constrained in terms of allocating funds for climate change adaptation at a local level. Local-level adaptation is further hindered by constrained technical and institutional capacity for the implementation of policies from central government to district councils. There is, therefore, a need for alternative streams of funding to enable vulnerable communities to improve their own climate resilience

Chronic poverty remains the most severe challenge to improving climate resilience in the Lake Chilwa basin, as it exacerbates several of the other drivers of vulnerability. Because food security and household income are strongly affected by natural resource use and availability, they are major determinants of poverty. Food insecurity is also compounded by poverty because of the need for poor households to engage in livelihood strategies that adversely impact the natural environment. For example, the degradation of terrestrial ecosystems in the Lake Chilwa basin is causing a decline in livelihood productivity as well as a reduction in food security in the region. The decline in livelihood productivity and the continuation of inefficient livelihood strategies are exacerbated by existing development challenges in the Lake Chilwa basin, including inadequate infrastructure and poor linkages to lucrative value chains.

Within the basin, investment in the development of infrastructure – such as rural feeder roads, agro-processing facilities, agricultural technologies, storage facilities and improved markets – is necessary. The challenges around infrastructure are further intensified by high population density (at ~321 people per km²) in areas surrounding the lake, which is among the highest in Malawi. This population density, coupled with rapid population growth and decreasing livelihood productivity in terrestrial landscapes, is causing overcrowding in fishing villages around the lake, placing greater pressure on the aquatic resources

within the lake. Moreover, the growing population is increasing the need for products derived from wetland and riparian areas adjacent to the lake. For example, the harvesting of reeds and other plant materials by local communities has contributed to environmental degradation, resulting in siltation of the lake, biodiversity loss and a decrease in fish habitats and spawning sites. The degradation of terrestrial and aquatic resources in the lake basin, in combination with climate change impacts, is resulting in several other challenges for local communities. Examples include: i) an increase in the occurrence of livestock diseases as a result of the degradation of terrestrial ecosystems in conjunction with rising temperatures; and ii) a rising incidence of diseases such as cholera.

Long-term preferred solution

To date, investments in adaptation in Malawi, including in the Lake Chilwa basin, have been largely once-off and sector-specific. The project's long-term preferred solution to reduce vulnerability to climate change is consequently a sustainable, cross-sectoral transformation of the overarching development trajectory of the Lake Chilwa basin. This should be achieved by a shift away from natural resource degradation and limited livelihood opportunities towards large-scale implementation of EbA and widespread adoption of alternative livelihoods and value chains that build adaptive capacity while contributing to reducing the country's greenhouse gas emissions. This solution will also see the lessons learned from the Lake Chilwa basin upscaled across the country through policy and private sector models that create green jobs particularly among small, medium and micro enterprises – thereby contributing to recovery from Covid-19 economic damages. The main interventions for achieving the preferred solution in the basin will include: i) enhancing the capacity of communities and institutions to plan, implement and monitor EbA interventions; ii) improving small-scale producers' access to lucrative markets for climate-resilient products and value chains through diversification of product/service offerings and alternative livelihoods, as well as through a sustainable climate finance facility; and iii) facilitating the adoption of alternative livelihoods. These interventions will see more robust and coordinated relationships between the private sector and small-scale producers, facilitated by concessional financing, improved infrastructure and technologies. This could include, *inter alia*, roads and transportation infrastructure, telecommunication infrastructure, and equipment such as cold storage facilities to reduce post-harvest losses of harvested commodities. The legal formalisation of institutions and the roles of stakeholders in climate change adaptation and capacity-building processes will also emerge from these interventions.

While previous and ongoing initiatives have been implemented to address the root causes described above, there remains a need to expand these initiatives and in particular to bridge the gap in available financing for enhanced climate resilience of communities in Lake Chilwa and beyond. To achieve the preferred solution, producers and enterprises in the Lake Chilwa basin need to be connected to local and regional markets through the development of climate-resilient technologies and infrastructure based on local knowledge and innovations, as well as improved information sharing around these innovations. For example, improving agro-processing as a value-adding activity for raw fish and agricultural produce would reduce post-harvest losses and enable higher quality products to be sold to lucrative markets through appropriate value chains, while also reducing GHG emissions. Creating effective knowledge-management information platforms targeting value-adding processes, in addition to highlighting the potential for private partnerships in these processes, would support their effective and sustainable uptake. Moreover, the preferred solution will strengthen the development pathway in the Lake Chilwa basin to focus on the most vulnerable communities – particularly women and other marginalised groups such as the youth. The abovementioned infrastructural interventions will be necessary to ensure producers in the basin are able to engage effectively with commercial entities and appropriate value chains. Specifically, small-scale

producers in the region require adequate storage facilities, refrigeration equipment and processing machinery such as solar dryers. Additionally, information networks and partnerships are required to enhance collaboration between communities with potential for value chain enhancement and the commercial entities with which market linkages can be established.

A primary feature of the preferred solution would be that communities in the area are able to implement Ecosystem-based Adaptation (EbA) interventions and better manage the natural resource base on which they depend. This would include reducing the overexploitation of natural resources and restoring ecological infrastructure within forests, riparian areas and wetlands. These interventions would ensure the continued delivery of ecosystem goods and services which would, together with diversified livelihoods and value-addition services, enable vulnerable communities to build their resilience to climate change. Aside from the post-harvest storage and processing interventions already mentioned, communities' livelihoods will be advanced under the long-term preferred solution through alternative options such as mushroom cultivation, and beekeeping. Widespread adoption of these livelihoods would greatly improve the capacity of vulnerable communities to adapt to the current and projected impacts of climate change, in addition to recovering from the economic impacts of the COVID-19 pandemic.

Barriers to be addressed

Despite ongoing efforts to address the environmental, social and economic challenges associated with climate change, several barriers remain to achieving the long-term preferred solution in the Lake Chilwa basin. These are described below.

Barrier 1: Limited technical and financial capacity among communities for the adoption of alternative livelihoods.

Unsustainable livelihood practices, such as illegal and overfishing, are a growing challenge in the Lake Chilwa basin. These practices affect the numerous local communities in the area who are dependent on fishing for their livelihoods (a subset of the ~154,000 fisherfolk directly employed as of 2017 in the country's fishing industry[33]). As lake, forest and wetland resources dwindle under continued overexploitation, communities' livelihoods are becoming increasingly unproductive, leading to severe food and income insecurity in the Lake Chilwa basin. The size of harvests from these resources is increasingly reduced, forcing subsistence farmers and fisherfolk to either intensify their operations and/or expand their areas under cultivation/harvesting. Moreover, as the population density in the area increases[34], more households are having to share fewer resources. While several climate-resilient alternative livelihood options are being developed at a small scale, with potential to be implemented at a large scale, their adoption by local communities in the Lake Chilwa basin has been limited by a scarcity of technical knowledge (both among communities and extension services) on implementation of these practices, as well as a lack of financial resources for starting the new ventures.

Barrier 2: Limited knowledge and skills among subsistence farmers and fisherfolk of value-addition practices for agricultural and fisheries products.

Despite the widespread adoption of agricultural livelihoods in the project target area, knowledge and information beyond subsistence farming and fishing is limited. As a result, local communities have a limited understanding of agricultural and fishery value chains and the options for maximising the value of products – including post-harvest value-addition practices, such as food processing and refrigeration/stable storage. This problem is compounded by constraints on financial resources, which influence decision-making and behaviour, thereby limiting the uptake of value-addition practices. The limited adoption of value-addition services is evident in the high rate of post-harvest losses currently observed in lake catches and staple agricultural crops. Communities' limited knowledge on preventing these losses compromises the quality of harvested products, thereby reducing the market value of commodities, as well as the likelihood of purchase by other value chain actors.

Barrier 3: Limited social accountability systems and community capacity to enforce environmental regulations.

The Government of Malawi (GoM) has gazetted protected fishery areas by declaring conservation and harvest reserves in designated areas across the country. These reserves offer a range of protection, from complete prohibitions against the removal of any organism to other regulations such as seasonal closures or restrictions on the removal of specific species. Other protected areas have been created on a smaller scale in areas such as Lake Chilwa by local communities as part of co-management arrangements with local GoM institutions. These protected areas are either temporary – as is the case of fish sanctuaries established in Lake Chilwa tributaries during periods of lake recession – or semi-permanent, where fisherfolk take control of the protection. However, protected areas have generally failed to gain the necessary support of local communities as they are perceived to be top-down government directives. Both central and local government have limited resources to effectively monitor and enforce the national guidelines and, as a result, encroachment into protected areas remains a considerable challenge, as does noncompliance with environmental regulations. The limited extent of monitoring and enforcement means social accountability is not experienced by the users of natural resources. From individuals to the community-level, a low likelihood of punishment for non-compliance with environmental regulations means a greater likelihood of the overexploitation of resources. Consequently, this leads to growing pressure on aquatic resources and in Lake Chilwa in particular, overfishing has partly been the result of limited management and enforcement capacity. The GoM has introduced a licensing system that only allows a fixed number of participants in the fisheries sector. While the system has limited the entry of large-scale operators, it has been less effective with artisanal^[35] and subsistence fisherfolk – who are commonly the main inhabitants of lakeshore communities. The primary challenge in enforcing licensing arises from the difficulty to administer the system with a dispersed and often mobile fisherfolk fleet.

Barrier 4: Limited technical and institutional capacity among communities for environmental and natural resource management, as well as implementing EbA measures.

Limited capacity for self-regulation and environmental and resource management in local communities prevents meaningful participation of these communities in the effective management of fisheries, forests and wetlands. In addition, community engagement with associated catchment-level initiatives that ensure the effectiveness of gazetted legislation for fisheries is limited. This prevents local communities from self-regulating and reduces compliance with existing regulations. The management of natural resources is also adversely affected by communities' limited capacity to plan, implement, monitor, evaluate and maintain EbA interventions. In turn, this exacerbates resource degradation as unsustainable land-use practices continue in the absence of effective EbA. Central to the persistence of this barrier is the: i) limited technical capacity of district-level institutions to coordinate and support community-based climate

adaptation; and ii) widespread existence of knowledge gaps, particularly on relevant, locally appropriate skills and techniques in EbA planning. This means that there is an insufficient transfer of knowledge between stakeholders, with institutional fragmentation preventing meaningful community engagement on the ground.

Barrier 5: Limited access to finance and markets for climate-resilient products by MSMEs and the informal sector.

Currently, communities within the Lake Chilwa basin have limited access to commercial finance from banks or microfinance from microfinance institutions, restricting their access to lucrative markets for the sale of their harvested fishing and agricultural commodities. This constrains their ability to adopt alternative, climate-resilient livelihoods as they are unable to benefit from local and regional demand for high-quality commodities such as pre-packaged agricultural products and dried or cured fish. As a result, the development of micro-, small- and medium-sized enterprises (MSMEs), particularly those dependent on natural resources, is constrained within the project target area.

Barrier 6: Limited investment and support from private sector and other value chain actors towards adaptation, as well as generally limited private sector engagement with small-scale producers.

Within the Lake Chilwa basin there is minimal interaction between the commercial entities across the value chain and local, small-scale producers such as smallholder farmers and fisherfolk. As described under Barrier 5 above, this results from producers' inability to access markets for the sale of their commodities, products and services. Given the limited capacity of producers to engage in value-adding activities (such as post-harvest processing), commercial entities are not attracted to investing in associated value chains, as they are perceived not to be lucrative.

Baseline scenario and associated baseline projects

The GoM has implemented numerous climate change-focussed programmes and projects, coordinated by the Environmental Affairs Department (EAD) under the Ministry of Forestry and Natural Resources. In addition, several technical and steering committees have been established to oversee technical planning, implementation and policy direction of climate change action in the country. The GoM institutions are supported by Community-Based (CBOs) and Non-Governmental Organisations (NGOs) – some of which are implementing resilient livelihood projects, while others are involved in policy advocacy and analysis. Previous and ongoing projects and programmes executed at the national level by the GoM include the: i) National Climate Change Programme; ii) National Climate Resilience Programme; iii) Climate Resilience Initiative in Malawi (CRIM); iv) Enhancing Climate Resilience Programme; v) Disaster Risk Management for Resilience (DRM4R) Programme; vi) National Agriculture Investment Plan (NAIP); and vii) Poverty Environment Action for SDGs (PEA) project.

The proposed project will build on the previous experience of development and climate change projects and programmes in the country. This will include direct alignment and complementarity with the LDCF-funded project entitled '*Malawi-climate resilient and sustainable capture fisheries, aquaculture development and watershed management project*' (SFAD-WM), which is currently in the PPG phase. The SFAD-WM project is outlined below. Other past and

ongoing projects implemented in Malawi that the proposed GEF project will build on are also described below.

Malawi-climate resilient and sustainable capture fisheries, aquaculture development and watershed management project (SFAD-WM) (2020–2025; US\$ 18,812,763; Ministry of Agriculture Irrigation and Water Development (MoAIWD); AfDB).

The LDCF-funded SFAD-WM project is providing support towards sustainable fisheries in Malawi through community led and climate-smart watershed management. The project is a sub-component of a larger AfDB project being implemented in Malawi targeting several ecosystems. Key components of the SFAD-WM project are outlined below.

- Strengthened capacity of village level institutions for natural resource management and watershed (and lake) management.
- Strengthened capacity of local- and district-level institutions for watershed planning and management, and lake protection. This will include *inter alia*:
- Rehabilitation of aquatic ecosystems; and improved lake protection. This will include *inter alia*:
- Knowledge management, and monitoring and evaluation (M&E)

Areas of complementarity and alignment between SFAD-WM and TRANSFORM

Private sector engagement and financing window: TRANSFORM PIF will complement SFAD-WM by through an emphasis on private sector engagement and climate financing. It will focus on key value chains – including those complementing fisheries, such as storage facilities, post harvest handling, agricultural technologies and innovations. TRANSFORM will enhance the scalability of interventions under SFAD-WM through the establishment of a climate financing facility (under Component 1), which will be anchored under Malawi Innovation Challenge Fund (MICF) and subsequently transition to National Climate Change Fund. Consequently, the combined outcomes of the SFAD-WM and TRANSFORM projects will greatly increase the potential for scalability within and beyond the Lake Chilwa basin.

Capacity building of local governance structures: TRANSFORM will limit capacity building support to areas linked with private sector engagement, climate financing and livelihood diversification. Both projects will engage with the established Lake Chilwa Basin Trust for inter-district coordination.

Watershed plans and ecosystems-based adaptation (EbA) plans: TRANSFORM will utilize outcomes from SFAD-WM project for the development of EbA plans to guide the identification of potential alternative livelihoods and options for ecosystem restoration.

Support toward diversification of livelihoods: TRANSFORM will collaborate with SFAD-WM in resilience-building packages for vulnerable communities. TRANSFORM will extend to agro-based and non-agrobased livelihoods while SFAD-WM focuses primarily on aquaculture value chains. Co-location options and interventions targeting will be jointly agreed upon. TRANSFORM will also include support towards infrastructure to support livelihoods and private sector – including manufacturing, irrigation, ecotourism, and value addition. Through complementarity with TRANSFORM, SFAD-WM also stands to benefit from innovations and technologies related to the fisheries sector.

Coordination: The two projects will identify avenues for coordination at national level (through steering committee) and district level. This will extend to open information sharing and co-planning where possible (in co-hotspots).

Information and Knowledge: TRANSFORM will complement SFAD-WM in information and knowledge management. This will include the establishment of a repository for initiatives and information generated in the basin.

TRANSFORM will directly link to the SFAD-WM project and will greatly improve the potential for its scalability and replication across the Lake Chilwa basin, as well as the rest of Malawi.

These complementarities will be further strengthened during the PPG phase through engagement between the different national and district institutions as well as the technical teams involved in the two projects. The GEF OFP and the Ministry of Finance will provide overall guidance on institutional alignment to prevent duplication while ensuring that both projects contribute to the national climate change and sustainable development objectives of Malawi.

[Enhancing the Resilience of Agro-Ecological Systems \(ERASP\) \(2015–ongoing; US\\$ 94.7 million; Ministry of Agriculture, Irrigation and Water Development, International Fund for Agricultural Development \(IFAD\)\)](#)^[36]

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This project aims to improve the sustainable management and governance of ecosystems to ensure continued provisioning of ecosystem goods and services in Malawi. Additionally, ERASP will safeguard the long-term productive potential of critical food systems in response to the changing social and economic needs of rural populations. This will be achieved through joint natural resources management at a landscape level by developing catchment management plans and establishing catchment management committees, provisioned for under Malawi's 2013 Water Resources Act. The emphasis of the project is on evidence-based and coordinated development planning to achieve a shared vision for the governance and sustainable management of natural resources. The proposed TRANSFORM project will complement this project by contributing to the enhancement of productivity of agricultural landscapes and fisheries in Malawi through integrated management plans, thereby improving food security. Duplication will be avoided by ensuring that the plans for natural resource management under the TRANSFORM project are developed for different areas of the country, subsequently benefiting communities not exposed to the ERASP project. New and innovative elements of the integrated management plans to be developed under the proposed GEF project will include options for alternative livelihoods outside of traditional agricultural systems, such as beekeeping.

African Forest Landscape Restoration Initiative (AFR100) (2020–ongoing; US\$ 23.5 million; Ministry of Forestry and Natural Resources, and Food and Agricultural Organization (FAO))[37]

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In 2016, under the African Forest Landscape Restoration Initiative, Malawi committed to restoring 4.5 million ha of forests by 2030. The restoration interventions under this project will be implemented as part of the 'Large-Scale Forest Landscape Restoration in Africa', a regional project that will target four countries – Rwanda, Kenya, Cameroon and Malawi – for forest landscape restoration. The proposed GEF TRANSFORM project will also contribute to the restoration of forests and other ecosystems critical to livelihood and food security in Malawi, through the development of an EbA plan under Component 2. The new and innovative elements of the EbA plan under the proposed GEF project will include alignment with local and district planning frameworks, as well as their links to investment plans under Output 3.3, to ensure EbA interventions are complemented by resilience-building livelihood and land-use activities.

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Private Sector Development Project (PSDP) (2015–2022; ~US\$29 million; UNDP, IFAD, GoM)[38]

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This project will contribute to the transformation of the private sector in Malawi through economic diversification, job creation and greater economic opportunity for resource-poor communities. In addition, a more receptive policy and institutional environment for agricultural and manufacturing value chains will be developed through ensuring the establishment of the value chains at policy level. The PSDP operational approach is characterised using two instruments: i) UNDP's Inclusive Markets Development (IMD); and ii) a 'Challenge Fund' – which provides financing and economic stimulus packages for businesses in Malawi. Direct support will be provided to businesses for accessing concessional finance and technical assistance provided to supporting agricultural and manufacturing value chain enhancement. By improving Malawi's agricultural and processing value chains, through increased private sector engagement and updated post-harvest processing technologies, the proposed GEF project will also contribute to transforming fishing and agricultural markets for both subsistence fisherfolk and farmers. An innovative feature of the proposed project is that communities will be responsible for both management and monitoring of their natural resources, contributing to the sustainability of interventions through enhanced compliance with relevant environmental laws and regulations.

Proposed alternative scenario

The baseline scenario includes a number of separate initiatives that seek to: i) improve sustainable management and governance of ecosystems in Malawi; ii) safeguard the long-term productive potential of critical food systems in response to the changing social and economic needs of rural populations; iii) restore large tracts of forests; and iv) transformation of the private sector in Malawi through economic diversification, job creation and greater economic opportunity for resource-poor communities. These are mostly thematically discrete and also operate in different geographical zones. Focussed application of these approaches in a more integrated manner will yield more effective climate resilience across a wide range of actors in the Lake Chilwa basin, while providing a model for scaling up and replication in other zones. However, in the absence of investments to overcome the barriers to integrated resilience building –

particularly those centered around long-term financing for sustainability – there will be a continuation of the environmental feedback loop of increasing vulnerability of local communities, greater reliance on the declining natural resource base and the exacerbation of the impacts of climate change in the Lake Chilwa basin as well as in Malawi as a whole. The agriculture and fisheries sectors will also continue to suffer damages and losses from the impacts of climate change, with ensuing food shortages causing further increases in domestic grain prices. Isolated private sector initiatives will continue to focus on traditional business models, disconnected from community adaptation and ecosystem-based approaches, failing to channel finance towards adaptation. These impacts will be most acutely experienced by the most vulnerable communities in the Lake Chilwa basin, where the population is primarily dependent on subsistence agriculture and fishing for their livelihoods.

The proposed project – entitled *Transformational Adaptation for Climate Resilience in Lake Chilwa Basin of Malawi (TRANSFORM)* – will build on existing initiatives aimed at the sustainable and equitable use of natural resources within the Lake Chilwa basin. TRANSFORM will result in novel outcomes to ensure a transformative shift in concessional funding for climate-resilient development in Malawi. Specifically, TRANSFORM will leverage LDCF resources for the implementation of initiatives aimed at catalysing private sector financing to develop climate-resilient value chains, enhance market linkages and thereby incentivising business and investment opportunities for climate resilience in the project target areas.

The primary way this will be achieved is through the development of an innovative sustainable climate financing facility (SCFF) which will unlock long-term financing for ecosystems-based adaptation (EbA) in the Lake Chilwa basin, which will further enable upscaling to other regions of Malawi. The financing facility, to be initially launched through the Malawi Innovation Challenge Fund, will be scaled up to national level and integrated into the National Climate Change Fund that is currently being set up in the country. By enabling vulnerable communities to access funding for livelihood diversification and the development of small-scale climate-resilient enterprises, the project will address cross-sectoral challenges to increasing social, ecosystem and economic resilience to climate change. TRANSFORM will respond to priority areas as assigned in the National Resilience Strategy (NRS) and National Climate Change Management Policy to support Malawi’s progress towards a climate-resilient development pathway. In addition, by aligning with the National Climate Change Investment Plan^[39], the proposed project will be locally appropriate and context specific while also having great potential for scalability within and beyond the Lake Chilwa basin.

Making use of the climate information system developed in other projects, TRANSFORM will ensure that the climate resilient initiatives, including livelihood diversification, will not lead to maladaptation. In the proposed alternative scenario, interventions implemented under the project will serve as models for the GoM to upscale effective solutions for medium- and long-term adaptation priorities in Lake Chilwa.

Additionally, TRANSFORM will support technical and operational capacity building of communities and sub-national authorities for enhanced climate resilience, invest in infrastructure and stimulate private sector engagement and investment in Lake Chilwa’s catchment districts of Zomba, Phalombe and Machinga. Moreover, sustained awareness will be created among all stakeholders of the benefits of healthy ecosystems achieved through sustainable management practices. Moreover, the implementation of the NRS and other national climate change policies will be supported under the proposed project, by catalysing investment in climate-resilient infrastructure and innovations. This will be used for upscaling and accelerating private sector engagement and

community-based action on climate change adaptation. In addition, vulnerable households will be equipped to engage in alternative climate-resilient livelihoods, the viability of which will be enhanced through the creation of market linkages and private sector partnerships. The diversification of livelihood strategies within the target area will also indirectly contribute towards the mitigation of climate change. This will occur by enabling a shift away from unsustainable land-use practices such as overexploitation of forests for charcoal production, restoration of degraded land, as well as by increasing agricultural efficiency and encouraging the reuse of agricultural and other waste products.

Overall, the proposed alternative scenario will be a sustainable development approach for communities and ecosystems in the Lake Chilwa basin to build their resilience to climate change. The climate resilience will be created through, *inter alia*: i) developing alternative livelihood options; ii) capacity building for EbA and enhanced M&R of natural resources; iii) increased market access and value chain enhancement for fishing and agricultural commodities; and iv) greater support and investment from the private sector for small-scale producers. The sustainability of this approach will be ensured through concessional financing, improved infrastructure and technologies for livelihoods, and value-adding activities for harvested commodities.

The proposed project will build on lessons learned in baseline projects and upscaling will take place with an increased focus on resilience-building innovations, private sector engagement and local economic empowerment. Lessons learned from both the abovementioned projects demonstrated the need for upscaling of best practices, as well as further development of i) lucrative value chains; ii) integrated water supply systems; iii) renewable energy technologies iv) natural regeneration and restoration of ecosystems; v) integrated agriculture and infrastructure development; and vi) mechanisms to catalyse financial resources for livelihood development. The proposed project's interventions will incorporate these lessons learned, and include specific activities developed towards establishing and strengthening value chains, improving private sector engagement and increasing uptake of improved agricultural technologies. In particular, the proposed project will build on the lessons learned through the Adapt Plan^[40] (2012–2019) and Climate Proofing Development Gains projects^[41] (2011–2019) which determined that best practices require upscaling based on integrated community-based adaptation and ecosystem-based management. Consequently, these approaches will be integrated into the TRANSFORM project design to achieve enhanced climate-resilient livelihoods and improved ecosystem management. Differentiation from previous investments will be ensured as the project will focus solely on Lake Chilwa, and not all lakes in Malawi. The TRANSFORM project will also have a novel approach by transforming adaptation solutions into market-driven processes and sustainable financing. This will complement capacity building achieved by other projects – such as the GEF-funded project entitled *Malawi-climate resilient and sustainable capture fisheries, aquaculture development and watershed management project* – while simultaneously avoiding duplication of effort. The strong focus on value chain-oriented activities under the proposed project will in particular add innovation and avoid duplication with other projects.

Finally, while previous projects have primarily focussed on the immediate environs of Malawi's lakes, this project will encompass the entire Lake Chilwa basin, and as a result, have a considerable impact on the main economic sectors and activities within the three districts around the lake, including fisheries, agriculture, and energy-based value chains. Specific interventions following the best practices of these projects will include: i) access to finance for beneficiaries to autonomously establish their own climate-resilient livelihood enterprises; ii) connections to markets for products from climate-resilient livelihood practices; iii) local investment plans that are climate resilient; iv) EbA management plans and approaches; and v) knowledge management that can be used to initiate a transformative process for other districts. By implementing these interventions, the project will contribute to the adaptation themes prioritised by the GoM, as listed below.

Participatory, local adaptation planning through ecosystem-based approaches: In line with the NRS and Convention on Biological Diversity (CBD) recommendations, the project will include the adoption of an innovative and evidence-based suite of interventions for climate resilience in degradation and vulnerability hotspots. The adoption of EbA approaches for improved natural resource management will be achieved through the development of a participatory ecosystem management plan for the Lake Chilwa basin – with potential for upscaling to other regions of Malawi (Output 2.1). The plan will include an area-specific investment plan to encourage continued support by the GoM through domestic climate financing mechanisms.

Effective governance mechanisms: The project recognises the contribution of strong local governance structures in effective natural resource management across district borders within Malawi. Traditional structures will support the revision and management of co-management strategies and collaboration across target ecosystems. To enable this, the project will build the capacity of communities in both short- and long-term adaptation strategies, in addition to ecosystem monitoring to manage dependence on natural resources and inform engagement in local adaptation planning. Moreover, the project will consolidate existing knowledge from other partners in the area to feed into the relevant national plans and strategies for wider adoption of adaptation actions. Drawing on local indigenous knowledge – combined with the incorporation of innovation, best practices and lessons learned – the project will develop models for private sector engagement, participatory ecosystem management planning, adaptation approaches, and local investments for climate resilience.

Access to finance and financial management: As mentioned above, the proposed TRANSFORM project will build on the Adapt Plan and Climate Proofing projects – which have contributed to the decreased climate vulnerability of local Malawian communities by providing micro-finance for livelihood development and diversification. Through the establishment of cooperatives and viable businesses, and the resulting expansion of market access, households involved in these projects have already demonstrated increased income generation and asset accumulation. Building upon these successes, TRANSFORM will complement and upscale these initiatives by providing further access to credit and concessional financing, as well as extension and business support services.

Linkages with markets and stimulating private sector engagement: TRANSFORM will strengthen value chains with the potential for wider community and social benefits. This will include creating stimulus packages and granting mechanisms, as well as developing a sustainable climate finance facility (SCFF) that will facilitate financial incentives to encourage private sector investments in selected value chains. Building on previous projects in the Lake Chilwa region that focussed on fish, bamboo, rice and other NTFPs as climate-resilient commodities, the TRANSFORM project will continue to support innovative ventures with the potential to catalyse further investments. This will be achieved through the design and operationalisation of the SCFF to stimulate private sector investment in value chain development. Local enterprises and entrepreneurs within Lake Chilwa basin communities will be targeted with special calls or funding windows initiated by the SCFF for innovation in climate-resilient livelihoods and value chains. In addition, the proposed project will support both public and private sector investments in local infrastructure required for the enhancement of livelihood resilience. This will further strengthen communities' priority adaptation actions and improve catchment management.

Local investment plans that are climate resilient: The TRANSFORM project will support beneficiaries in acquiring skills and knowledge that will allow them to develop plans for investment into alternative, climate-resilient livelihoods. These Framework Investment Plans for sustainable, climate-resilient livelihoods and value chains will be developed for each target district, in line with existing district planning frameworks and the EbA plan also to be developed under TRANSFORM.

Sustainable recovery and building back better from Covid-19: TRANSFORM will provide beneficiaries with opportunities to rebuild and expand their livelihoods following the impacts of Covid-19 that disrupted production, incomes, value chains and local enterprises. These opportunities will be based on sustainable approaches, and will provide local actors with stronger and more resilient value chains based on communication linkages between local producers, consumers and traders.

Component 1: Enhancing financing and investment in adaptation options and climate-resilient enterprises in the Lake Chilwa basin, with potential for upscaling to other regions of Malawi.

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Component 1 of the proposed project will unlock financing for climate resilient investments and private sector engagement in the Lake Chilwa basin and beyond. In recent decades, the GoM has undertaken several steps to strengthen entrepreneurship in Malawi, including strengthening public organisations tasked with entrepreneurship development. These include *inter alia* Technical Education, Vocational and Entrepreneurial Training Authority (TEVETA), Small and Medium Enterprise Development Institute (SMEDI) and Malawi Rural Development and Enterprise Fund (MARDEF)[42]. Numerous programmes aimed at supporting SMEs are also provided by different government departments and institutions, and the private sector. However, these initiatives have had limited success, and MSMEs across the country remain constrained by insufficient access to debt financing and venture capital[43]. This component will therefore support the strengthening of the enabling environment for MSMEs to be vehicles for upscaling innovative solutions, including their access to financing. The barriers to low-cost finance for MSMEs will also be addressed by the project.

Under Component 1, GEF resources will be used to strengthen the enabling financial environment for long-term adaptation to climate change. This will be achieved through the design and operationalisation of an innovative financial mechanism – namely the Sustainable Climate Financing Facility (SCFF) – which will catalyse public and private sector investments in climate-resilient livelihoods and enterprises, thereby incentivising improved ecosystem management and enhancing ecosystem-based adaptation (EbA). Local communities benefitting from diversified livelihoods implemented under Component 2 will be linked to the SCFF a Framework Investment Plan (FIP), which will be developed for each target district. This will strengthen market linkages, support private sector investment in climate-resilient enterprises and livelihoods contribute to EbA in the basin. This will demonstrate the benefits of climate change adaptation, and thereby enhance the potential for upscaling across the rest of Malawi. To achieve this, the proposed project under Component 1 will design and strengthen linkages between market actors across value chains through a market information hub that will improve the dissemination of information between market actors. The beneficiaries will extend beyond formally registered businesses to include both artisanal producers as well as aspiring young and/or female entrepreneurs. Financial resources catalysed under the SCFF may also be used to support innovative project ideas by community groups and civil society organizations

The interventions under Component 1 will be complemented by the establishment of a knowledge management hub under Component 3, which will enable sharing of knowledge between stakeholders to inform the development of similar approaches in the Basin. Whereas the market information hub will primarily benefit entrepreneurs and MSMEs within target districts, the knowledge management hub will be used by decision makers at both local and national level when exploring climate resilient development options. In so doing, the upscaling of previous investments in the project area and across Malawi will be promoted in a locally appropriate and context-specific manner. Component 3 will address climate vulnerability, as well as the barriers and root causes previously listed. More detail is provided below.

Climate vulnerability: Enhancing public and private investment in ecosystems-based adaptation (EbA) in the Lake Chilwa basin will greatly improve the climate resilience of vulnerable communities in the basin. Specifically, Component 1 will ensure the sustainability of climate-resilient livelihood and EbA interventions implemented under Component 2, thereby reducing community vulnerability to climate hazards such as droughts and floods. In addition, by strengthening the enabling environment for financing of EbA, Component 1 will allow for interventions implemented under the project to be upscaled to other parts of Malawi, which will contribute to reducing climate vulnerability of communities across the country.

Barriers: Component 1 will address the barrier of limited access to finance and markets for climate-resilient products by MSMEs and the informal sector (Barrier 5).

Root causes: Component 1 will strengthen the enabling environment for climate-resilient socio-economic development in Malawi under current and future climate conditions. Therefore, the component will indirectly contribute to addressing all of the root causes described previously.

Outcome 1. Enhanced public and private sector investment in and strengthened market linkages for sustainable, climate-resilient enterprises to provide communities with alternative sources of income.

Output 1.1 A sustainable climate finance facility established to stimulate public and private sector investment for MSMES, with a new CCA funding window opened under the MICF, provision of technical assistance and strengthening of the microfinance industry, for innovation in climate-resilient livelihoods, enterprises and technologies.

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Under this output, access to finance for building climate-resilient livelihoods and businesses will be enhanced for MSMEs, farmers and fisherfolk in the Lake Chilwa basin, including local public and non-profit entities. This enhanced access to finance will be achieved by establishing a new adaptation finance facility, by providing technical training and support, and by facilitating access to microfinance. Details on each of these sub-components of this output are provided below. The baseline upon which the project will build includes existing credit lines provided by funds, commercial banks and microfinance institutions. The

additional and innovative interventions to be implemented by the proposed project include: establishing funding windows and financial products dedicated to climate change adaptation investments; training a wide range of stakeholders to access the credit lines and to climate-proof their business operations and value chains; and establishing community-based credit and saving associations to facilitate access to microfinance for artisanal farmers and fisherfolk with negligible collateral to implement adaptation interventions.

Finance facility. A new facility – the Sustainable Climate Finance Facility (SCFF) – will be established to enable private sector investors to invest in innovative, climate-resilient livelihoods, enterprises and value chains. GEF resources will be used to establish the facility and provide technical support for its management, but will not be used to capitalise it. The capital will be sourced from the private sector (in accordance with climate-resilient Framework Investment Plans (FIP) developed under Output 3.3), and in particular through the existing and well-established Malawi Innovation Challenge Fund (MICF) that is managed by UNDP. A dedicated window within the MICF will be created for climate change adaptation and for assisting in the capitalisation of the SCFF. While the MICF has already successfully launched and closed other funding windows – most recently for tourism – the SCFF will be focussed on the Lake Chilwa basin and will therefore be the first geographically targeted window under the MICF. This geographically targeted funding window will serve as a model for financing similar projects in the future. It should be noted that the MICF will only serve as the initial platform upon which the SCFF will be established, and that the SCFF will be upscaled nationally under the National Climate Change Fund (NCCF), which is currently under development. The vision of the GoM is that the operationalisation of the SCFF will be achieved under the MICF, but that the facility will be transferred to the newly established NCCF. The NCCF is envisioned to be financed through carbon levies collected by the GoM which have been earmarked for environmental actions, as outlined in the Environmental Management Act of 2017. Funds collected through these levies will be ring-fenced for these actions – including those aimed at improved climate resilience – which will ensure institutional permanence in the environmental sector. Currently, the NCCF is not yet fully operational, as further work on its governance arrangement and technical capacity for undertaking its work is required. Therefore, the MICF, which has a fully functioning institutional structure and comprehensive technical capacity, will be a more suitable platform for the initial stages of setting up the SCFF, until the NCCF has been fully operationalised. This arrangement will ensure the effective transfer of technical and institutional capacity from the MICF to the NCCF.

For the capitalisation of the SCFF through the funding window established under the MICF, the private sector in Malawi will be directly approached to assist in through, for example, socially responsible investment products within the banking sector. Such products include socially responsible mutual funds. If there is insufficient capital raised within Malawi, international banks and investors focussing on ethical investment strategies will be approached to invest in these products offered by the Malawian banks.

Based on extensive consultations during the PIF preparation it has been identified that there is considerable interest within the international community for investments that assist in uplifting poor communities in addition to providing nature-based solutions to climate change. However, given the limited technical and institutional capacity among local communities for engaging in high-value markets, such investments remain high risk. Consequently, there remains a need to de-risk investments into uplifting communities by increasing their knowledge of and skills for value-addition in agriculture and fisheries, as well as by improving their awareness of the impacts of climate change, and increasing social accountability in natural resource use. It is consequently envisaged that there will be a strong demand for well-structured, socially responsible investment products from Malawi. Such products would include a strong focus on gender and social safeguards. Local Malawian banks will benefit from the sale of these types of investment products, not only through the commissions

earned on the products, but also because it will contribute to their corporate social responsibility objectives. The proposed project will assist the Malawian banks in developing the products in an appropriate manner for attracting local and international investors, and then in managing the products and disbursing loans to eligible stakeholders in the Lake Chilwa basin.

Technical training and support. The project will provide technical training and support – through, for example, workshops, training events and continuous technical advisory services – to the MICF, MSMEs, artisans, farmers, and fisherfolk. This wide range of stakeholders is necessary to ensure that the funding mechanisms function effectively and that local communities will be in a position to use these mechanisms to finance their climate-resilient livelihoods. The training for the MICF will focus on climate change adaptation and investment opportunities for building climate resilience in the Lake Chilwa basin, but also Malawi as a whole. In this way, the project will support the upscaling of the MICF’s activities country-wide[44].

Training for MSMEs, artisans, farmers and fisherfolk in the project’s target districts (with a strong focus on women and youth) will be tailor-made for their individual needs in a particular district and will include topics such as: climate change; financial literacy; business operations, including basic accounting; opening of bank accounts; accessing micro-finance through organisations such as community-based village banks and saving associations; accessing commercial bank loans; compliance with legal requirements; registering of companies; reporting on the performance of their operations to funders; management of natural resources under climate change conditions; reducing post-harvest losses despite climate change conditions; meeting quality standards developed by buyers such as supermarkets and restaurants; diversifying products under climate change conditions; accessing new and higher value markets; and attracting investors. This training will be complemented by the partnerships established between local communities, extension services, CBOs, farmers, buyers and private sector enterprises under Output 1.2. Through the above-described training and these partnerships, a wide range of investments for MICF, SCFF, commercial banks and micro-finance institutions will be de-risked.

Access to microfinance. Community-based credit and saving associations will be established by the project where local communities are supportive of such an intervention. Savings associations have been demonstrated to be highly effective in similar rural settings, such as in Kenya, where models known as the ‘village banking model’ and ‘self-help group bank’ have been adopted. The advantages of these associations include the following: little or no collateral is necessary to take out a loan, as the group as a whole provides the guarantee for each individual’s loan; records on returns on investment and performance of individual members are filed and can be used by individuals or MSMEs for accessing more traditional sources of credit through commercial banks; and records from the associations can be used to show private sector investors the impacts of their investments at a granular scale. In the past, the functionality of community-based credit and saving associations would have been compromised in rural areas because of difficulties in accessing banks. Today, however, remote mobile banking services are offered in Malawi through services such as Airtel Money or M-Pesa[45]. Because these banking service providers use SMS’s to operate, it can provide village bank members with access to banking services, despite having no internet access or being in remote locations.

Examples of activities to build climate resilience in the Lake Chilwa basin that could be financed by the SCFF or community-based credit and saving associations include: cold storage facilities to reduce post-harvest loss from fish catches under increasing temperatures; kilns used for the production of energy-efficient briquettes; beekeeping equipment – including processing machinery to derive multiple products from hives; mushroom-growing kits; and water-saving irrigation systems such as drip irrigation or micro-sprayers. Another sector that will be targeted under the SCFF will be ecotourism, which will be aligned with the conservation programme developed for Lake Chilwa under the SFAD-WM project. These activities will not be considered in isolation, but rather

analysed in relation to the value chains within which they are situated. The project will provide technical advisory services to assist the above funds and associations in ensuring that appropriate investments are made across entire value chains to prevent breaks in these chains having detrimental effects on businesses and operations situated elsewhere in the chains.

An important component of the training of MSMEs, artisans, farmers, and fisherfolk within the project will be to highlight how the long-term benefits from enhanced access to finance, the implementation of new technologies and improved efficiency of their operations will only accrue if there is sustainable management of their natural resources under climate change conditions. Through this training the project will ensure that the private sector in the basin understands that that natural resources underpin their businesses and livelihoods and that these natural resources are currently under threat from over-harvesting and climate change impacts. In so doing, the project will facilitate a shift in societal mindset so that private and public sector organisations and local communities work together to harvest the natural resources in the basin sustainably and seek to build the climate resilience of the various ecosystems present in the basin. This collaborative work will be undertaken in Output 2.1 through the development and implementation of a participatory EbA plan with integrated management frameworks.

Output 1.2. Partnerships established between communities, extension services, CBOs, farmers, buyers and private sector enterprises, including through the development of a market information hub and introduction of technologies that will increase access to, and strengthen, high-value markets.

Output 1.2 will strengthen and establish partnerships between smallholder farmers and micro-, small- and medium-sized enterprises (MSMEs), to enable stronger engagement between communities and the private sector in the Lake Chilwa basin. Networks will be created to further encourage collaboration between and within all links in agricultural and fishery value chains. These networks will be developed in a gender-sensitive manner and will comprise partnerships that connect *inter alia* private sector entities, public institutions, small-scale producers and extension services, thereby enhancing interaction between currently siloed business operations within the Lake Chilwa basin. Partnerships will be fostered particularly through the establishment of information hub, which facilitate knowledge transfer and provide networking opportunities. The hubs will promote the uptake of improved technologies, the accessing of support services and other activities to enhance the investment potential of MSMEs and small-scale producers in the target area. This will in part be achieved by raising awareness on the potential economic and social development gains from increasing access of climate-resilient enterprises and alternative livelihoods to high value markets. Information from the hub will be fed into a broader knowledge-management hub, which will be developed under Component 3 of the project.

Output 1.3. Technical assistance provided to the Malawi National Climate Change Fund (NCCF) to integrate and implement the SCFF initially introduced through the ICF.

Under Output 1.3, technical assistance will be provided to the newly established National Climate Change Fund (NCCF), to enable the effective transfer of the SCFF to the NCCF from the Malawi Innovation Challenge Fund (MICF). During the initial stages of development of the SCFF, the fully functioning institutional structure and comprehensive technical capacity of the MICF will be leveraged, after which the SCFF will be transferred from the MICF to the NCCF (once it has

been fully operationalised). This arrangement will ensure the effective transfer of technical and institutional capacity from the MICF to the NCCF. Technical assistance will include *inter alia* ongoing support from the MICF, as well as the institutional capacity building of the NCCF and training of its staff on climate change adaptation financing and private sector engagement.

Component 2: Implementation of EbA and sustainable climate-resilient livelihoods

Component 2 of the proposed project will involve the implementation of ecosystems-based adaptation (EbA) and livelihoods diversification – including support towards ecosystem management and restoration, and strengthening linkages between vulnerable communities and high value chains. In the Lake Chilwa basin, these communities strongly depend on ecosystem goods and services to support their livelihoods. The TRANSFORM project will complement the National Forest Landscape Restoration Strategy to protect and strengthen ecosystem health for the sustained flow of goods and services to local communities. Component 2 will also include the development and implementation of a basin-wide EbA plan which will be aligned with national priorities and strategies, and will build on the Watershed Management Plans (WMPs) developed under the SFAD-WM project. As the SFAD-WM project is primarily aimed at strengthening fisheries, Component 2 of TRANSFORM will aim to strengthen value chains for fisheries products, expand the implementation of alternative livelihoods, and strengthen value chains beyond the fisheries sector. Thereby, gains made under the SFAD project will be leveraged to further enable basin-wide adaptation to climate change, as well as upscaling to other regions of the country. Component 3 will also include the development of a community-based ecosystem monitoring and reporting (M&R) system – leveraging support from extension services – which will ensure the sustainability and scalability of EbA interventions. Using an integrated, cross-sectoral approach, the project will also facilitate the implementation of viable, community-based adaptation practices which include alternative livelihoods, climate-resilient agricultural practices, and small-scale, nature-based businesses. Such activities will be undertaken by resource-poor members of the community, the majority of which are women and the youth. The community-based adaptation practices supported by the project will therefore specifically benefit these vulnerable community members, drawing on best practices and lessons learned from Adapt Plan’s promotion of diversified livelihoods, such as the processing and selling of NTFPs.

In addition to upscaling the Adapt Plan project, the proposed GEF project will introduce new and alternative livelihood options to ensure a transformative shift away from unsustainable land-use practices. Novel to the proposed project will also be the enhanced capacity to maintain these livelihoods, through participatory community-based monitoring of natural resources. Livelihood diversification interventions will be directly aligned with and complementary to the SFAD-WM project’s objective of strengthening fisheries across Malawi. While livelihood interventions under SFAD-WM focuses on aquaculture value chains, TRANSFORM will extend to agro-based and non-agrobased livelihoods. TRANSFORM will also include support towards infrastructure to support livelihoods and private sector engagement (e.g. manufacturing, irrigation, eco-tourism, value addition) and SFAD-WM stands to benefit from innovations and technologies related to the fisheries sector. Co-location options and interventions targeting will be explored during the PPG phase, and jointly agreed upon. Component 2 will address climate vulnerability, as well as the barriers and root causes previously listed. More detail is provided below.

Climate vulnerability: Under Component 2, promoting EbA solutions for local livelihoods and business development will directly address the vulnerability of beneficiary communities in the Lake Chilwa basin. Specifically, Component 2 will increase the capacity of these communities to adapt to climate impacts and hazards affecting their livelihoods – including increasing rainfall variability and decreasing levels of precipitation, as well as extended droughts and extreme

floods. In addition, Component 2 will strengthen the enabling environment for climate change adaptation across Malawi by showcasing the benefits of livelihood diversification and EbA, which will increase the potential for upscaling of project interventions to other parts of the country.

Barriers: Component 2 will address several barriers, including: i) Limited technical and financial capacity among communities for the adoption of alternative livelihoods (Barrier 1); ii) Limited knowledge and skills among subsistence farmers and fisherfolk of value-addition practices for agricultural and fisheries products (Barrier 2); iii) Limited social accountability systems and community capacity to enforce environmental regulations (Barrier 3); and iv) Limited technical and institutional capacity among communities for environmental and natural resource management, as well as implementing EbA measures (Barrier 4).

Root causes: Component 2 will contribute to: reducing the overdependence on natural resources – one of the main underlying factors of climate vulnerability; improving food and nutrition security; increasing adaptive capacity of vulnerable communities to cope with climate hazards.

Outcome 2. Reduced vulnerability of communities in target districts to climate change through the implementation of EbA interventions and the introduction of sustainable climate-resilient livelihoods.

Output 2.1. An EbA Plan – with an integrated management framework – that identifies climate change vulnerability and ecosystem degradation hotspots – developed for the entire Lake Chilwa Basin, building on Watershed Management Plans (WMPs) developed for each target district under the SFAD-WM project.

Under this output, a participatory cross-sectoral EbA plan – with a specific focus on women and youth – will be developed for each of the three target districts. This will include the identification of climate change vulnerability and ecosystem degradation hotspots which will be targeted for the implementation of interventions under Outcome 3 of the project. In addition, a Community-Based Resilience Analysis (CoBRA) will be used to identify priority adaptation actions for each of the identified hotspots in line with national priorities and strategies such as the National Forest Landscape Restoration Strategy (NFLRS). The EbA plan will also include an integrated cross-sectoral management framework to ensure alignment between the individual EbA plan of each target district, as well as existing district planning frameworks, to ensure the effective implementation of EbA across the Lake Chilwa basin. Moreover, these EbA plan will use lessons learned from and build upon Watershed Management Plans (WMPs) developed under the SFAD-WM project, which focus on improving the sustainability of fisheries in Malawi's lakes through community-led and climate-smart catchment management. This will ensure complementarity with baseline investments in Malawian fisheries, while avoiding duplication of interventions. Moreover, in line with the transformative nature of the proposed project, the EbA plan under this output will draw on those from the previous GEF project to scale up EbA across the entire basin, and deliver community-wide benefits that ultimately have a major socio-economic and environmental impact across the entire area.

In preparation for the development of the EbA plan described above, district- and community-level institutions – particularly youth and women's groups – will be trained to plan, implement and monitor the basin-wide EbA plan. This will improve the technical capacity of these institutions to enhance community resilience in a gender-sensitive manner. The scope of the training will include: i) interpretation of climate information and projections, as well as the expected impacts; ii) identifying feasible adaptation approaches to address the impacts of climate change with a focus on EbA; iii) planning the identified adaptation approaches in the local context; iv) overseeing the implementation of adaptation approaches at the district and community levels; and v) monitoring of

interventions after implementation. Accordingly, the capacity-building activities will comprise education, information and awareness-raising sessions for priority institutions on the importance of EbA, as well as its relevance to reducing the vulnerability of these institutions. In addition, technical training workshops will be hosted in each district to subsequently enhance the technical capacity of these institutions to plan, monitor and implement EbA – building on the knowledge and understanding augmented by the educational sessions.

This individual and institutional capacity building will ensure the retention of institutional knowledge on EbA within the Lake Chilwa basin, and in turn, reduce the impacts of high staff turnover, that may threaten the sustained use of EbA. The retention of institutional knowledge will also be supported by the knowledge-management hub created under Component 3. The capacity-building training will focus on the natural resources within and around the lake and wetlands in the basin, with a specific emphasis on ecosystem services and long-term benefits of, for example, sustainable fishing practices. Training will be provided on the impacts of climate change on natural resources within the lake and surrounding ecosystems, the management and monitoring of these resources, as well as monitoring of climatic and non-climatic impacts to the natural resource base. This training will be supplemented by education on the provisioning of ecosystem services and how to maintain them not only for the benefit of livelihoods but also to reduce the risk of climate hazards on communities.

Based on the aforementioned EbA plan developed under Output 2.1, watershed management and EbA interventions will be implemented in line with and in support of those rolled out under the SFAD-WM project. EbA interventions under the TRANSFORM project will be strongly focussed on supporting the expansion and development of high value chains. TRANSFORM will build on SFAD-WM by further expanding EbA-related activities implemented under SFAD-WM and will support upscaling in areas previously not targeted. Specific EbA-related activities to be implemented in each target district will be identified and costed during the PPG phase. The upscaling of EbA interventions will contribute to alleviating some of the primary drivers of environmental degradation in the Lake Chilwa basin, with potential for upscaling across the country. In particular, the negative impacts on fish stocks (linked to the decreasing productivity of surrounding agricultural areas) will be reduced. Additional EbA measures to reduce the dependence of local communities on the use of wood for charcoal production will include the introduction of processing technologies for fuel-efficient briquette production using agricultural waste products, such as rice husks. This will reduce the dependence on forest ecosystem resources as well as pressure placed on the wider natural resource base in the target area. To facilitate this shift, briquette-making communities will receive assistance from relevant, upskilled institutions, in particular on the construction of appropriate infrastructure such as beds for drying of agricultural waste. In addition, access to inputs such as water will be subsidised, highly concessional, or provided at a reasonable cost, thereby promoting fuel briquettes as a productive commercial sector. Further research will also be conducted to assess the potential supply of a wide range of biomass materials and quality of varieties of fuel briquettes. Increased demand for briquettes among communities will be achieved through marketing efforts and value-adding activities such as packaging, labelling and awareness-raising on the benefits of fuel-efficient briquettes.

Additional interventions that supplement EbA activities to increase water-use efficiency and improve the supply of water in the region, will include *inter alia*: i) household water-harvesting systems and post-harvest storage^[46]; ii) the adoption of improved irrigation technologies (for example drip irrigation systems); iii) the stabilisation of riverbanks using green infrastructure to reduce erosion; and iv) a shift to agroforestry systems. Agroforestry will improve agricultural productivity, and ecosystem service provisioning, including soil conservation and erosion control regulation of the hydrological cycle – for example, through improvements in the quality and quantity of water resources in the region as a result of increased infiltration. Agroforestry-related activities under this output

will build on interventions previously implemented under other projects, and will specifically build on the SFAD-project, under which agroforestry and conservation farming practices will be implemented across 3,000 ha of agricultural areas. Under the TRANSFORM project, the land area under agroforestry systems will be expanded to include additional communities. This will contribute to increasing the area in the Lake Chilwa basin under improved management practices and extend the reach of direct and indirect adaptation benefits to more people in the Lake Chilwa basin. Moreover, novel agroforestry systems will be introduced to encompass a wide range of communities and ecosystems ensuring the unique needs of each target community are met and that their natural resources are appropriately managed.

Output 2.2. Community-based ecosystem Monitoring and Reporting (M&R) system established in each target district to support enhanced natural resource management and compliance with environmental regulations.

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Under this output, an M&R system will be established in support of an integrated approach to the maintenance of ecosystem health. This will ensure *inter alia*: i) effective environmental management; ii) compliance with relevant regulations; and iii) eventual self-regulation of communities surrounding Lake Chilwa. This will complement the EbA plan to be developed under Output 2.1, providing the means for not only supporting enhanced natural resource management, but also for establishing an evidence base from which EbA plans may be iteratively revised and refined to inform further action. Information generated within the M&R system will be fed into the knowledge management hub established under Component 3 of the proposed project. The establishment of the M&R will include a comprehensive valuation of ecosystem services in the project area, informing the baseline upon which M&R will be undertaken, and to determine the contribution of the proposed project's interventions over time.

The M&R system established under this output will be designed and operationalised in line with local and district planning frameworks – including Watershed Management Plans (WMPs) developed under the SFAD-WM project – to build on and improve previously established systems for monitoring natural resources and reporting on their overexploitation or unsustainable use. For example, communities will be trained on the importance of monitoring degradation or threats to the target areas' natural resource base (such as the use of illegal fishing nets), as well as how to measure and report these threats to the relevant authorities. In addition, communities will also work towards ensuring that sustainable land-practices continue beyond the project's lifespan to maintain benefits associated with adaptation interventions. Communities will be fully engaged in monitoring natural resources and ecosystem threats, and through their improved understanding of the associated benefits of adaptation they will be more invested in ensuring long-term sustainability of project interventions. Such community engagement in M&R will discourage perpetuating a 'tragedy of the commons' situation, as community members will be reluctant to continue unsustainable practices if they are aware of environmental monitoring and potential penalties for non-compliance. Not only will this apply to lake and wetland resources, but forest ecosystems as well, with individuals less likely to engage in charcoal production and other activities that degrade the landscape.

BVCs – whose technical and institutional capacity will be strengthened under the LDCF-funded SFAD-WM project – will be used to operationalise the M&R system. These committees were selected because they possess the appropriate skills and knowledge, such as an understanding of the applicable environmental laws and regulations, for effective management of lake resources. Investments by previous projects in environmental monitoring systems will be complemented under the TRANSFORM project through a strongly technology-oriented and community-based focus. For example, the use of GIS-enabled incident-recording/reporting devices and unmanned aerial vehicles (UAVs), such as drones, will provide information not only to communities for natural-

resource management, but also to potential entrepreneurs and investors. Training will also be delivered to enhance the technical and human resource capacity of communities surrounding Lake Chilwa for enforcement of relevant laws and regulations, as well as M&R. While the M&R systems will be designed for each individual district, knowledge-sharing and collaboration will be encouraged between districts through the knowledge management hub established under Component 3 of the proposed project. This will be done by ensuring that the information generated through M&R will be fed into the hub, and that provision is made for effective sharing of this knowledge between districts.

To provide comprehensive support to community-based M&R systems, a training-of-trainers approach will be used to incorporate knowledge-management and -sharing into the proposed project by providing operational and technical support to extension services. This will allow extension service officers to transfer knowledge and expertise to BVCs, and other stakeholders operating within the M&R system, to ensure effective, on-the-ground implementation and maintenance of the system. This training system will allow local communities to determine the success of the project by monitoring the success of proposed interventions – for example, seedling survival rates for restoration actions – and to report on stakeholder engagement and other project targets. In addition, community members will be trained on reporting on the attendance of training sessions by various groups, as well as on whether gender-related targets are being met. This support will enable M&R efforts to extend beyond the project lifespan, ensuring the sustainability of interventions.

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Output 2.3. Technical capacity of communities, extension services, CBOs, farmers, buyers and private sector enterprises enhanced, to identify and prepare climate-resilient business plans and project packages that are financially viable, for support from the SCFF

This output will strengthen the technical capacity of communities, extension services, CBOs, farmers, buyers and private sector enterprises to identify and prepare climate-resilient business plans and project packages that are financially viable, to qualify for support from the SCFF. Capacity-building support under Output 2.4 will include *inter alia*: i) financial literacy training (which has not been formally conducted in Malawi before); ii) capacity for planning for allocation of funds; iii) dedication of funds specifically for the adoption of innovative and energy-efficient technologies; iv) accelerated application processes for ventures with demonstrable skills and knowledge of adaptation options; and v) dedicated allocation of a considerable proportion of funds for women and youth-run enterprises. In support of the SFAD-WM project, TRANSFORM will limit capacity building support to areas linked with private sector engagement and livelihood diversification. Both projects will engage with the established Lake Chilwa Basin trust for inter-district coordination.

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Output 2.4. Sustainable climate-resilient livelihoods implemented in target communities through the provision of training (including at least 50% women), provision of start-up inputs (such as beekeeping equipment) as well as the development of partnerships with local suppliers and value chain service providers (through technical advisory services).

Under Output 2.4, support will be provided to relevant stakeholders to enable vulnerable communities – particularly women and youth – to shift from unsustainable, climate-vulnerable livelihoods and income streams, such as charcoal production, to a situation where the adoption of climate-resilient livelihoods is a feasible and readily-available option. This will occur through, *inter alia*: i) the development of ecotourism in the Lake Chilwa basin; ii) the upscaling of existing initiatives for the production and sale of NTFPs – including mushroom cultivation and products derived from beekeeping enterprises;

and iii) the development of fishery and agricultural value chains – particularly in support of the SFAD-WM project. The mechanism used to achieve the shift towards sustainable climate resilient livelihoods will include three stages across the development period. First, during the PPG phase of the project, information will be gathered on forest, wetland and lake users and resource use, extent of different ecosystems, the condition of natural resources in the ecosystems, and forest-based livelihood opportunities. The second stage will involve negotiation of ecosystem management plans and agreements (including rights and responsibilities of community-, district- and government-level institutions), and securing formal legal structures for these agreements. Finally, empowered communities will implement their management plans and uphold any legal agreements, with full local and national government support. During the PPG phase, appropriate alternative, climate-resilient livelihoods that align with the EbA action plans developed under Output 2.1. and are suitable for adoption by local communities will be identified using Community-Based Resilience Analysis (CoBRA). In addition, to ensure equitable and gender-responsive efforts towards the adoption of alternative livelihoods, local communities in target districts (including at least 50% women) will also be trained on sustainable climate-resilient livelihoods, with a focus on the implementation, maintenance and monitoring of EbA interventions, therefore complementing Outputs 2.1 and 2.2. In addition, the proposed project will be implemented in communities that the previous SFAD-WM project and others did not focus on. This will result in the provision of alternative livelihoods to the entire population of the basin. To further support livelihood security of vulnerable communities in the target area, rural-urban business linkages will be established. This will facilitate aggregation by enhancing the ability of MSMEs and other enterprises to access district and city markets by *inter alia* ensuring harvested commodities meet market standards.

To support the implementation and uptake of sustainable climate-resilient livelihoods in the Lake Chilwa basin, inputs will be provided to local communities who require improved equipment and infrastructure. This will take the form of ‘starter kits’ for the establishment of NTFP-centred businesses, and will include goods, materials and equipment such as beehives and protective beekeeping equipment, or mushroom-growing kits. These starter kits will enable communities to smoothly transition to alternative, climate-resilient livelihoods. In addition, support will be provided to transfer appropriate knowledge and skills that will facilitate the establishment of partnerships between or across local communities, the private sector, government institutions and agricultural and fishery organisations. By establishing and strengthening connections between these entities, a collaborative environment will be fostered which will contribute to sustainably enhancing livelihood and climate-resilience across value chains and economic sectors – as opposed to limiting the uptake of climate-resilient livelihoods to unsustainable handouts from donors.

To increase the likelihood of success regarding the uptake of sustainable climate-resilient livelihoods, local communities will be trained on their adoption. By increasing the awareness and familiarity of the additional livelihoods, as well as the associated techniques and skills, local communities will develop confidence in the uptake and maintenance of those livelihoods. This will facilitate the effective and efficient transition away from current unsustainable fishing, farming and land-use practices. To complement this training on livelihoods, awareness will be raised surrounding climate change hazards, risks and impacts to better develop local communities’ understanding of the need for adaptation and the adoption of sustainable, climate-resilient livelihoods and technologies.

The project will support in addressing barriers to private sector investments and climate resilient livelihoods upscaling in the basin. In response to ventures and enterprises livelihood options implemented under Output 2.4, TRANSFORM will facilitate support for revamping and investments in relevant infrastructure including agroprocessing units, irrigation systems, markets, storage facilities, renewable energy investments and ecotourism hubs. Moreover, improved

farming technologies, processing equipment and infrastructure to prevent post-harvest losses – which have been identified as barriers to enhancing the livelihood resilience in the target area – will be enhanced. The project will simultaneously support training and capacity building for local governance structures and communities to climate-proof existing infrastructure supporting resilient livelihoods.

Component 3: Strengthening the enabling environment for upscaling of initiatives aimed at climate-resilient development across Malawi.

Under Component 3, the enabling environment required for gender-sensitive climate change adaptation planning, implementation, monitoring and financing will be strengthened. TRANSFORM will capacitate district- and community-level institutions to plan, implement and monitor Ecosystem-based Adaptation (EbA) – particularly to qualify for funding from the SCFF. TRANSFORM will complement other projects and initiatives in the basin through a focus on information and knowledge management – including the establishment of a knowledge management hub, which will serve as a repository for information generated in the basin. This will improve access by communities and the private sector to knowledge and information on: i) climate resilient natural resources management; ii) best practices on the implementation of diversified livelihoods and ecosystems-based adaptation (EbA) interventions; and iii) market information – collected in the information hub developed under Component 1. Component 3 will also enable the storage of lessons learned and knowledge generated from other projects in the Lake Chilwa Basin – particularly the SFAD-WM project. Improved knowledge management will be complemented by outreach and awareness-raising campaign to increase awareness of climate resilience and EbA across Malawi, as well as Framework Investment Plans (FIPs), which will be designed to link climate-resilient enterprises to the SCFF. Component 3 will address climate vulnerability, as well as the barriers and root causes previously listed. More detail is provided below.

Climate vulnerability: Component 3 will contribute to reducing the climate vulnerability of local communities directly by strengthening the enabling environment for upscaling of adaptation initiatives across Malawi.

Barriers: Component 3 will contribute towards addressing limited knowledge and skills among subsistence farmers and fisherfolk of value-addition practices for agricultural and fisheries products (Barrier 2), and contribute to the sustainability of other project components.

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Root causes: Component 3 will enhance the scalability of the proposed project, and the potential for climate-resilient development across Malawi.

Outcome 3. Strengthened enabling environment for district- and community-level institutions to plan, implement and monitor Ecosystem-based Adaptation (EbA), in readiness for receiving funding under the SCFF

Output 3.1. Knowledge management hub established to enable documentation and dissemination of best practices on EbA and livelihoods diversification, as well as market and product information.

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Under this output, knowledge-management and -sharing will be enabled through the collection and dissemination of best practices and lessons learned elucidated under the proposed LDCF project. This will take the form of, *inter alia*, a knowledge-management hub that will gather, record and archive the successes and areas for improvement with regards to project interventions. As a result, communities within and between districts will be able to share information on enhancing the climate-resilience of alternative livelihoods, as well as advice on how to improve both the financial viability and environmental sustainability of their business ventures. In addition, an annual event will be hosted by the hub, bringing together local and national stakeholders. These stakeholders will include private sector entities, NGOs, CBOs, government departments, smallholders and MSMEs – as well as universities, and research and higher education institutions to spearhead knowledge generation. Knowledge management activities under this output will directly complement those implemented under the LDCF-funded SFAD-WM project. This will include incorporation of the information system developed under the SFAD-WM project into the TRANSFORM knowledge management hub.

Complementarity will be ensured by using existing climate information services, developed under the previous project, to inform knowledge management and dissemination specifically for enhanced climate resilience of livelihoods. This will for example align with improved fisheries management through knowledge generation about climate risks and vulnerability in the fisheries sector at district level, under the previous GEF fisheries project. To provide a transformative approach, however, the proposed project will ensure the knowledge hub connects all value chain actors, using relevant technologies to establish and strengthen these linkages, as well as enabling communities to access high value markets. Finally, a further novel feature of the proposed project will be the development and integration of an IT-supported PC/smartphone application to drive the use of the hub.

Output 3.2 National awareness programme – on EbA and climate resilient investment opportunities undertaken in collaboration with private sector.

Under Output 3.2, a joint national outreach and awareness programme will be held in collaboration with the SFAD-WM project. The output will extend the awareness-raising and education component of the SFAD-WM project – including *inter alia* district- and community-level workshops on lessons learned, regional study tours, and annual ‘Lake protection and watershed management’ symposia – to areas previously not targeted across Malawi. By sharing information and raising awareness on EbA and climate-resilient investment opportunities, the investments made under the TRANSFORM project will increase the potential for upscaling across other areas of Malawi.

Output 3.3. Framework Investment Plan (FIP) for sustainable climate-resilient livelihoods and value chains developed for each target district in Lake Chilwa Basin, building on the WMPs developed through the SFAD-WM project.

Under this output, a climate-resilient Framework Investment Plan (FIP) will be developed for each target district in the Lake Chilwa basin, building on the Watershed Management Plans (WMP) developed under the SFAD-project. This will support public and private sector investment in climate-resilient enterprises established and strengthened under Component 2. Specifically, these FIPs will be operationalised using financial resources mobilised through a newly established Sustainable Climate Financing Facility (SCFF) under Output 1.1. The development of the FIP will be undertaken in a gender-sensitive manner and will include assessments on different investment opportunities, as well as the strengths and weaknesses of different markets. Currently, vulnerable communities are not adequately engaging with lucrative value chains because of the limited availability of established networks and business relationships for connecting private sector investors to local-level producers. The FIP will catalyse a shift towards a scenario where improved linkages between these

entities are established. Output 3.3 will include the identification of potential target areas for investment, as well as MSMEs that can be selected for technical support under Output 1.2, to enhance the climate resilience and environmental sustainability of their operations. Precedents have already been established in Malawi for the use of investment plans and funds towards climate change adaptation. For example, at a national level the National Climate Change Investment Plan was operationalised in 2014 to ensure that there is increased and coordinated investment in climate change[47]. In addition, the Strategic Programme for Climate Resilience (2017) includes potential entry points for investment and a framework for attracting financial resources from the private sector, international finance institutions (such as the GEF), national resources, and other financing windows[48]. These strategies and plans will inform the design of the FIPs under Output 3.3, ensuring they build on previous gains towards attracting external investment for increased climate resilience of livelihoods in Malawi.

Along with upscaling previous programmes, plans and initiatives, the proposed project will result in novel outcomes to ensure a transformative shift in concessional funding for enterprise development in the region. Specifically, transformation will be achieved through additional measures such as only allocating funds to MSMEs with enhanced technical capacity and financial literacy (developed under the proposed project) and therefore increased climate resilience. This will ensure the sustainability of business operations for selected ventures, thereby increasing the likelihood of success of their expansion/diversification activities as well as the impact that the concessional funding will have.

Output 3.4. Guidance for locally-driven climate resilience investment planning developed and disseminated to all districts in Malawi

In line with best practices and lessons learned from both the SFAD-WM and TRANSFORM projects, and experiences from the development and implementation of Framework Investment Plans (FIPs) developed under Output 3.3, guidance on locally-driven climate-resilient investment will be disseminated across Malawi. This guidance will be based on locally-appropriate information and knowledge collected within the knowledge management hub developed under Output 3.1, as well as international best practices on climate-resilient and sustainable investment opportunities.

Alignment with GEF focal area and/or Impact Program strategies

The proposed TRANSFORM project is aligned with two climate change-related LDCF Focal Areas detailed in the '*Updated Results Architecture For Adaptation To Climate Change Under The Least Developed Countries Fund And The Special Climate Change Fund (2018-2022)*'. Details of how the project aligns with each of these focal areas are provided below.

Focal area CCA-1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation

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The proposed project will enable the enhanced climate resilience of local communities by implementing innovative ecosystem-based adaptation (EbA) interventions and diversified livelihood options (Component 2). This will include technology transfer through the provision of inputs for climate-resilient livelihoods such as beekeeping enterprises and mushroom growing, as well as technology for improved agricultural irrigation systems and water-harvesting at household level.

The Framework Investment Plan (a new and innovative aspect of the proposed project) for sustainable climate-resilient livelihoods and value chains implemented under Component 2, as well the design and operationalisation of the sustainable climate finance facility under Component 1, will create an enabling environment for the effective implementation of the participatory EbA plan and alternative livelihoods under Component 2. As a result, the adaptive capacity of local communities in the Lake Chilwa basin will be enhanced and their climate resilience increased. These interventions will be complemented by the provision of financial literacy training to local communities under Component 2. This training will enable the communities to sustainably utilise the financial structures developed under the component, access lucrative value chains and thereby improve the climate resilience of their business operations.

Focal area CCA-2: Mainstream climate adaptation and resilience for systemic impact

Under Component 3, cross-sectoral technical capacity for climate change adaptation in Malawi will be developed. Specifically, this will be achieved through the inclusion of an integrated cross-sectoral management framework within the EbA plan developed under Output 2.1. This framework and these plans will enable a coordinated response to natural resource management and climate change adaptation in the Lake Chilwa basin through mainstreaming the plans into District planning frameworks. In addition, the linkages established between private sector institutions and MSMEs under the project will ensure that climate change adaptation is mainstreamed across the region by de-risking investment and increasing the climate-resilience of MSME operations. The mainstreaming of climate change adaptation will be further supported through the creation of an enabling environment for improved climate resilience under Component 3. This will be achieved by providing training to district- and community-level institutions for implementation and maintenance of EbA interventions and climate resilient livelihoods. As these interventions will be focused on capacity building of institutions, this will contribute to the retention of institutional knowledge on effective adaptive practices within the region.

Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The Government of Malawi views the implementation of a decentralisation policy as an important vehicle for making progress on poverty reduction. This has been captured in several government documents, including the: i) Vision 2020; ii) Malawi Poverty Reduction Strategy; iii) Malawi Growth and Development Strategy III; iv) National Decentralisation Policy; and v) National Resilience Strategy. These strategies have been elaborated in numerous projects and programmes, such as the Integrated Sustainable Rural Development Programme (ISRDP). The GoM has implemented the National Decentralisation Programme II[49] (2001–2004) to enable the completion of the decentralisation process. To function effectively, a decentralised government requires an effective central government. Currently the ministry responsible for planning and economic development in Malawi plans its activities and budgets by liaising with other sectoral ministries and identifying interventions that are aligned with larger development plans. For example, the development planning system in Malawi is largely based on the results matrix of the Malawi Growth and Development Strategy (MDGS) which indicates that development goals precede the importance of other national goals.

The LDCF funds for the proposed GEF project will contribute towards building the technical and institutional capacity of GoM and district- and community-level institutions, which will enable them to apply effective strategies in climate change adaptation and resilience building in Malawi. At the national level, the LDCF project will co-implement components with programmes such as, *inter alia*, M-CLIMES, DRR4P and National Climate Resilience^[50] to ensure a seamless climate change adaptation approach, and to strengthen the connection between central government and district council plans and policies. Capacity building for government institutions will be provided to individuals who are responsible for planning, implementation and monitoring of adaptation interventions at the community level. Providing technical training to GoM staff on climate change adaptation and resilience building will allow the GoM to integrate climate change into its routine development planning, budgeting and execution in a more informed and efficient manner.

The project will be supporting local communities to adopt an EbA approach to natural resource management, by focusing on reversing resource degradation through improved national and sub-national adaptation planning, ecosystem restoration and agricultural and fishery management systems. In addition, this will also occur through the transformation of subsistence agriculture and fishing to viable businesses, as well as improving access to commodity markets. This transformation will catalyse mechanisms for providing additional motivation, incentives and resources to communities (for example, through the sustainable climate finance facility under Component 1) to engage in more sustainable natural resource management in the target area. Additionality of the proposed GEF project will also be ensured through an updated, integrated approach that will be taken with regards to the establishment of community-based monitoring and reporting (M&R).

To achieve effective environmental management, compliance with relevant regulations and eventual self-regulation of communities surrounding Lake Chilwa, an M&R system will be established. This will complement the EbA plan to be developed under the project, therefore enabling enhanced natural resource management and monitoring. This is because a combination of renewed responsibility and ownership of natural resources will be endowed upon local communities, entrusting a sense of environmental stewardship that will be developed through technical training and awareness-raising activities under Output 3.2. Moreover, the M&R system will be designed and operationalised in line with local and district planning frameworks to build on and improve previously established systems for monitoring natural resources. Such community engagement in M&R will discourage perpetuating a 'tragedy of the commons' situation as community members will be reluctant to continue unsustainable practices if aware of the monitoring operations and potential penalties for non-compliance.

This approach will be facilitated by BVCs, who will receive training from extension services to enhance their technical and human resource capacity. Not only will this enable improved enforcement of relevant laws and regulations in addition to M&R, but it will also ensure that an evidence base is established which details the additional impacts of climate change on the Lake Chilwa basin. As a result, M&R will be linked with data collection, analysis and interpretation. This will ensure that when threats to the lake ecosystem are recorded, a distinction will be made by the community M&R teams between baseline and additional threats. Therefore, when reporting takes place, this distinction may be carried forward to the long-term monitoring of available resources, as well as of their potential for overexploitation or unsustainable use. Consequently, communities will be trained on the importance of monitoring baseline degradation or threats to the target areas' natural resource base (such as the use of illegal fishing nets), additional degradation or threats resulting directly from climate change, and how to measure and report these threats to the relevant authorities.

Table 1. Additional cost reasoning for the three components of the proposed project.

Component and additional cost (by fund)	Baseline	Alternative scenario
<p data-bbox="155 272 453 440"><u>Component 1:</u> Enhancing market linkages for private sector investment in adaptation options and climate-resilient enterprises.</p> <p data-bbox="155 509 384 537">LDCF: US\$ 705,914</p>	<p data-bbox="474 272 921 854">Small-scale farmers and fishers in Malawi primarily engage in subsistence-based livelihoods. Low yields of crops and poor lake productivity frequently leads to food insecurity and insufficient incomes for communities in the Lake Chilwa basin. There is potential to improve incomes for these farmers and fisherfolk by promoting enhancing market linkages for the sale and value addition of their harvested commodities. However, producers' limited ability to access markets or microfinance to invest in the required inputs constrains the adoption of climate-resilient livelihoods. Access to financial services and commodity markets is particularly restricted for rural women, as a result of the burden of unpaid work and cultural and social norms regarding the roles of women (see Section 3).</p> <p data-bbox="474 922 921 1390">In the baseline scenario, MSME development will continue to be limited as a result of the low capacity of farmers to take on financial risks or access more lucrative and/or wider value chains. Without investment building capacity for MSME development and improving access to finance and markets, the transition from shifting subsistence agriculture to sustainable, climate-resilient agricultural and fishing livelihoods is likely to remain unviable for many small-scale producers. Access will continue to be particularly limited for women, exacerbating existing gender inequalities in the absence of GEF investment.</p>	<p data-bbox="942 272 1509 467">The proposed project will engage with private sector partners to increase access to micro-finance, private sector investment and market linkages for small-scale producers. Under this component, GEF resources will be used to incentivise subsistence farmers and fisherfolk to transition to climate-resilient livelihoods and enterprises.</p> <p data-bbox="942 532 1509 951">To achieve this, impact investment mechanisms (such as the operationalisation of a sustainable climate finance facility) will be developed and market access for local producers will be improved through engagement with <i>inter alia</i> private sector partners, microfinance institutions, CBOs and NGOs. This will initiate a transformative shift towards a climate-resilient development pathway that will be induced by: i) enhancing the financial literacy of local businesses in the target districts; ii) providing technical support to these businesses to enhance the climate resilience of their operations; iii) establishing and strengthening linkages with the private sector; and iv) enhancing access to micro-finance.</p> <p data-bbox="942 1016 1509 1263">Consequently resource-poor communities relying on subsistence fishing and agriculture will experience a transformative shift to an environment wherein they are able to increase the value of their harvested commodities through processing, reduce post-harvest losses and advance their economic and social status through entrepreneurial empowerment and sustainable business activities.</p> <p data-bbox="942 1328 1509 1549">In addition, Framework Investment Plans for sustainable climate-resilient livelihoods and value chains will be developed, also in line with existing district planning frameworks and the EbA plan developed under Component 2. These interventions will create an enabling environment for the implementation of EbA and value chain development and for the replication of project initiatives</p>

		in other watersheds in Malawi.
<p><u>Component 2: Implementation of EbA and sustainable climate-resilient livelihoods.</u></p> <p>LDCF: US\$ 3,000,000</p>	<p>Unsustainable agricultural and fishing practices, including shifting agriculture and the use of indiscriminate mosquito nets for fishing, contribute to the degradation of natural resources in Malawi. As a result, there is a decline in the delivery of ecosystem goods and services that support rural livelihoods and increased vulnerability to extreme climate events including floods, droughts and landslides.</p> <p>Several initiatives have used EbA and livelihood adaptation in Malawi to address these challenges. However, these initiatives have had limited success in incentivising farmers, fisherfolk and local communities to adopt climate-resilient, livelihoods and EbA approaches, meaning gaps in livelihood, food and income security still exist.</p> <p>Without GEF investment, development and implementation of climate-resilient EbA approaches towards enhancing livelihood resilience will remain a challenge. The success of watershed management initiatives is likely to continue to be limited by the lack of incentives for farmers to adopt sustainable practices and limited support for community-level governance of natural resources. In this scenario, unsustainable agricultural and fishing practices will continue to contribute to natural resource degradation and climate change vulnerability.</p>	<p>Using GEF finance, EbA interventions identified in the EbA plan will be developed and implemented in vulnerability and degradation hotspots. Implementation will be championed by community members and institutions that received training under Component 1, in line with national priorities and strategies. In addition, Component 2 will include the development of a community-based ecosystem monitoring and reporting (M&R) system which will ensure the sustainability and scalability of EbA interventions. Using an integrated, cross-sectoral approach, the project will also facilitate the identification and implementation of viable, community-based adaptation practices which include alternative livelihoods, climate-resilient agricultural practices, and small-scale, nature-based businesses. Such activities are often undertaken by resource-poor members of the community, the majority of which are women and youth. The community-based adaptation practices supported by the project will therefore specifically benefit these vulnerable community members, drawing on best practices and lessons learned from the Adapt Plan project's promotion of diversified livelihoods.</p> <p>Forests, wetlands and degraded agricultural land in the target area will be restored and protected using GEF investments. This will improve the delivery of ecosystem services, and the productivity of agricultural and fishing livelihoods, thereby reducing natural resource degradation and increasing the climate resilience of rural communities and their livelihoods. To further support this and the sustainability of interventions under Component 2, local communities in target districts (including at least 50% women) will be trained on: i) the implementation and maintenance of EbA interventions; and ii) sustainable climate-resilient livelihoods.</p>
<p><u>Component 3: Strengthening the enabling environment for upscaling of initiatives</u></p>	<p>To date, there has been limited integration and centralisation of best practices, market information and knowledge</p>	<p>Through LDCF investment, the proposed project will include the establishment of a knowledge m</p>

<p><u>Initiatives aimed at climate-resilient development across Malawi</u></p> <p>LDCF: US\$ 500,000</p>	<p>Information generated on climate change adaptation within the Lake Chilwa basin and other regions of Malawi. There has also been limited capacity for upscaling of initiatives aimed at climate-resilient development across Malawi.</p> <p>In the baseline scenario, in the absence of a central repository of information and knowledge to improve climate resilience across the basin, coordination between ministries and integration of climate change adaptation efforts will continue to be limited. As a result, the national policy support for EbA and enhancing livelihood resilience will remain limited, constraining the implementation of these approaches. The baseline scenario is characterised by a weak enabling environment for district- and community-level institutions to plan, implement and monitor EbA.</p>	<p>Information hub to improve access by communities and the private sector to knowledge and information on: i) climate resilient natural resources management; ii) best practices on the implementation of diversified livelihoods and ecosystems-based adaptation (EbA) interventions; and iii) market information – collected in the information hub developed under Component 1. Component 3 will also enable the storage of lessons learned and knowledge generated from other projects in the Lake Chilwa Basin – particularly the SFAD-WM project.</p> <p>In collaboration with SFAD-WM, the TRANSFORM project will expand previous initiatives aimed at awareness raising on EbA and climate-resilient opportunities for investment. Moreover, the TRANSFORM project will build on Watershed Management Plans (WMPs) developed under the SFAD-WM project, by developing a Framework Investment Plan (FIP) in each target district to facilitate the upscaling of climate-resilient livelihoods and EbA in the Lake Chilwa basin and other areas of Malawi.</p>
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Adaptation benefits

In recent decades, climate change in Malawi has been characterised by i) a reduction in average annual precipitation; ii) increased average temperatures; and iii) an increasing incidence of droughts and floods. Rising temperatures and longer dry seasons are decreasing the productivity of small-scale agriculture which is predominantly reliant on rain as a result of limited irrigation infrastructure in rural areas. Increased climate variability and more frequent and severe extreme climate events are also exacerbating water insecurity, forest and land degradation, declining agricultural productivity, food insecurity and poverty. Long-term adaptation to these impacts is underpinned by functional ecosystems that can deliver the ecosystem services that moderate the impacts of climate change, while simultaneously supporting diversified climate-resilient livelihoods and enterprises.

The proposed TRANSFORM project will facilitate climate change adaptation in the three target districts of Zomba, Phalombe and Machinga. Approximately 100,000 people will directly benefit from project activities, with specific attention given to women and youth. In addition, the enhanced enabling environment for climate change adaptation enabled through both the TRANSFORM will benefit a total of approximately 5,737,000 people – the resident population of the catchments in the districts bordering the main lakes as deduced from the Malawi national census of 2018. The estimated number of women who will benefit from the project is at 2,954,000. The population figure assumes that the community engagement will reach all households in the catchments. Exact numbers of project beneficiaries will be determined during the project preparation phase. Improvements in climate resilience will be achieved by: i) enhancing cross-sectoral technical capacity for climate change adaptation; ii) implementing ecosystem-based adaptation (EbA) and developing sustainable climate-resilient livelihoods; and iii) enhancing private sector engagement and market linkages in climate-resilient livelihoods and value chains, as well as investment in adaptation through climate-resilient enterprises. In addition, the proposed project will deliver global environmental benefits aligned with two LDCF focal areas and two GEFTF focal areas.

The participation of women and children, as well as men, will be ensured during project development and implementation to ensure that the project is designed to maximise adaptation benefits, to promote gender equality, and for maximum sustainability. Expected adaptation benefits under the project are listed below.

- Strengthened district- and community-level institutions in Zomba, Phalombe and Machinga in the development and implementation of medium- and long-term adaptation priorities and investments.
- The increased flow of ecosystem services and community resilience as a result of the implementation of ecosystems-based adaptation interventions in the target areas (EbA).
- Diversified sustainable livelihood alternatives (NTFPs, agro- and non agro-based) for forest and lake-dependent communities.
- Improved food production systems for nutrition and income generation for the improved livelihoods of local communities.
- Improved water availability, use and efficiency for vulnerable communities and improved aquatic ecosystems in Lake Chilwa.
- Integration of climate resilience in infrastructure development and development investments in line with national priorities.

In addition to the adaptation benefits described above, the proposed TRANSFORM project will concurrently contribute to the mitigation of climate change in Malawi through the delivery of mitigation co-benefits. Under the proposed project, Ecosystem-based Adaptation (EbA) and livelihood-diversification interventions will not only enable the effective adaptation of local communities to climate change, but also result in the sequestration of carbon. Specifically, this will be enabled through restoration and reforestation of wetlands, riparian areas and catchment areas of the Lake Chilwa basin (Component 2), which will occur in conjunction with the creation of an enabling environment for long-term sustainability of interventions (Component 1 and 3).

Innovativeness, sustainability and potential for scaling up

The innovativeness and sustainability of the proposed project is embedded into the cross-sectoral, integrated suite of interventions which will be developed and implemented in a gender-sensitive manner in the targeted communities. Under the proposed project, linkages will be established and strengthened between local communities, the private sector, and local- and district-level government institutions. This will be achieved by: i) developing integrated planning frameworks for EbA and community-based adaptation; ii) developing interventions focused on improved institutional capacity for implementation of these frameworks; iii) strengthening the natural resource base for improved ecosystem health and increased livelihood productivity; iii) catalysing capital to finance these interventions; and iv) supporting the capitalisation of climate finance for upscaling of investment in adaptation solutions beyond the Chilwa Lake Basin. This will be achieved through the Sustainable Climate Finance Facility (SCFF), which will be developed under Component 1. The proposed project will support innovative financing mechanisms (e.g. returnable investment and revolving funds) under the SCFF, with the overall objective of making the financing facility sustainable over time and beyond the project lifespan. During the PPG phase, these and other such mechanisms will be explored in consultation with stakeholders. In addition, at PPG, UNDP will engage a financial expert to support detailed design of the facility.

Strengthening institutional capacity

The sustainability of the proposed interventions implemented under the project will be ensured by dedicating resources to build and strengthen the capacities of decentralised district- and community-level institutions in the target districts – including youth and women’s groups, and agricultural organisations. This institutional and individual capacity building will contribute to the creation of an enabling environment for the improvement of community resilience and ensure the long-term retention of institutional EbA knowledge within the Lake Chilwa basin. Retention of institutional knowledge will subsequently enable the integration, budgeting and delivery of gender-sensitive adaptation solutions at the community-level, as well as the continued use of monitoring and reporting systems (established under Component 2) to track development impacts. The institutional frameworks established under the project will be provided for use by other districts, national ministries or sectors, and the frameworks will be upscaled in keeping with the National Climate Change Management Policy commitments. The project will further ensure that all councils mainstream the appropriate mechanisms to maintain innovations and investments established under the project. In addition, the Government of Malawi is committed to supporting climate change resilience programmes in the country through the establishment of a National Climate Change Fund. This will facilitate effective and timely financing of climate change initiatives through domestic and international funding sources, as well as capacity building.

Collaboration with communities to develop and promote their climate change resilience and adaptive capacity

The design process of the proposed project interventions will include extensive consultations with stakeholders at several levels, including: i) national; ii) district; iii) community; and iv) household-level. This consultative process will ensure the representative involvement and engagement of communities and their ownership of the proposed interventions. In addition, capacity building and community empowerment programmes of the target beneficiaries will enhance the climate resilience and adaptive capacity of communities, subsequently ensuring the sustainability of livelihoods and project interventions. The project will collaborate with local stakeholders and prioritise community-led initiatives, which will further contribute to the sustainability of livelihoods beyond the project lifespan. Moreover, the proposed EbA initiatives and project interventions will be assessed to ensure environmental and social sustainability in accordance with Malawi and UNDP’s environmental and social policies. These include, *inter alia*: i) Environmental Management Act (1996); ii) Guidelines for Environmental Impact Assessment (1997) (where applicable); and iii) UNDP Social and Environmental Safeguards (ESS). These assessments will ensure the sustainable livelihoods of the target beneficiaries.

Promoting and facilitating private sector investments

The proposed TRANSFORM project will strengthen the enabling environment for private sector investments in community-based adaptation initiatives and alternative livelihoods. This will occur by strengthening market-based mechanisms to connect local-level MSMEs to lucrative value chains across the Lake Chilwa basin. The frameworks established and implemented under the project will link beneficiary communities to private sector actors, markets for climate-resilient products, functional institutions, finance to enhance livelihood resilience, as well as information that informs decision-making and planning at household, community and district levels. Throughout implementation, the project will respond to and incorporate emerging, compatible, and sustainable innovations related to enterprise development and general resilient livelihoods to promote the adaptive capacity of the target communities and households. In addition, the project will ensure that communities are effectively supported with management and sustainability mechanisms for all investments. UNDP will also support climate adaptation by leveraging the ongoing efforts under the National Climate Resilience Programme to identify climate adaptation technologies.

Potential for upscaling

The objective of the proposed project is to alleviate poverty and enhance the natural environment in the Lake Chilwa basin by bridging the gaps between economic development, climate change adaptation and improved ecosystem management. To achieve this objective in the long term, it is necessary to enable successful upscaling of the project. TRANSFORM will be directly linked with, and complementary to the LDCF-funded SFAD-WM project, which is currently in the PPG phase. The proposed TRANSFORM project is anchored in lessons from past climate change adaptation projects which indicated that without sustained adaptation efforts in Malawi, exposure to climate change will undermine years of development progress and asset accumulation. Several specific interventions – such as small-scale irrigation, conservation agriculture, livelihood diversification and woodland regeneration – have contributed to increased household and community climate change adaptation. The 2018 National Resilience Strategy in particular, recognises the contribution of wetland conservation and forestry management in supporting livelihoods and fulfilling adaptation measures for vulnerable communities.

TRANSFORM has been designed to expand investments made under the SFAD-WM project, by strengthening the enabling environment for climate-resilient development in the Lake Chilwa basin, as well as the country as a whole. This will be facilitated by the development of a sustainable climate finance facility (Component 1), a planning framework for EbA (Component 2), as well as improved knowledge management, an awareness-raising campaign, and framework investment plans (Component 3). Collectively, these interventions will enable livelihood and EbA interventions to be replicated in other districts across the country. By building on the established strategies and incorporating best practices and lessons learned from previous projects, the interventions implemented under the proposed TRANSFORM project can be readily scaled up in other districts across the country. Moreover, lessons from the project will be processed and disseminated to benefit other LDCs as well as non-LDCs through South-South cooperation.

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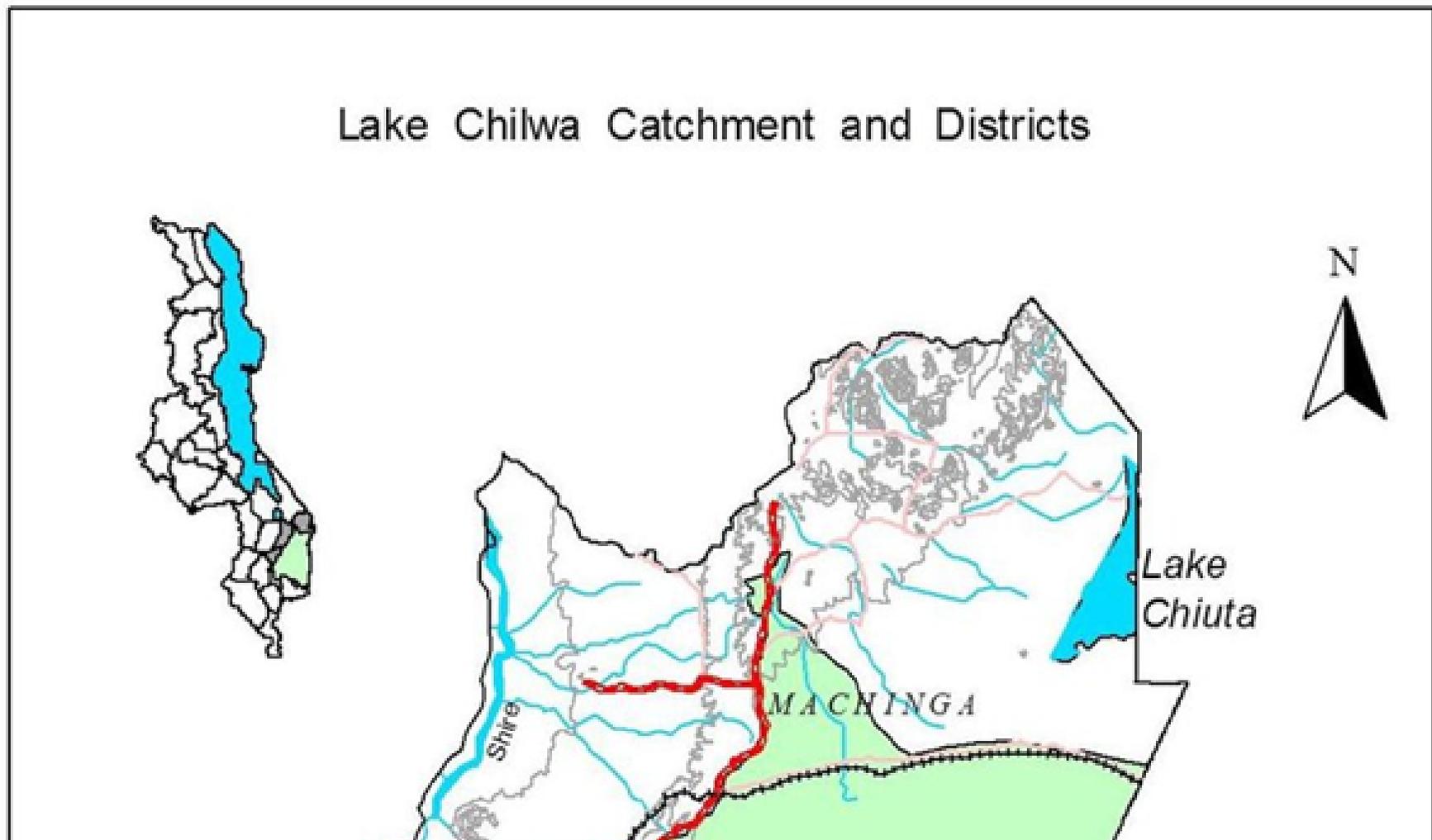
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- [34] Please refer to Section 1b. Project Map and Coordinates for detailed information on population and population density figures for each target district.
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- [48] Republic of Malawi. 2017. Strategic Programme for Climate Resilience: Malawi.
- [49] UNDP. 2015. Report on the review of the second national decentralisation strategy. Available at: <https://info.undp.org/docs/pdc/Documents/MWI/Final%20NDP%20II%20Review%20Report%20-25%20July%202015.pdf>
- [50] Please refer to Section 6: Coordination

1b. Project Map and Coordinates

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

The project will be implemented in the three districts of Zomba, Phalombe and Machinga, in the south-eastern part of the country. Within the three districts, the total population is 1,911,612 (Figure 1). Machinga District has a total land area of 3,582 km², with a total population of 735,438 and a population density of 205 people per km². Phalombe District has a total land area of 1,323 km² and a population of 429,450, with a population density of 325 people per km². Zomba District has a total land area of 2,363 km² and a total population of 746,724. It has a population density of 316 people km². Figure 1 below shows the project map, indicating the target districts in the Lake Chilwa basin. A detailed map of each district is presented in Annex A.





- Municipality
- Town
- Main Road
- = Secondary Road
- Tertiary Road
- District Road
- Railway
- - - District Boundary
- Camps
- Rivers
- Lake Chilwa Catchment

10 0 10 20 30 Kilometers

Site	geonames.org ID	Brief description
Phalombe	https://www.geonames.org/1105842/phalombe-district.html S 15°40'00" E 35°40'00"	Phalombe District has a total land area of 1,323 km ² and a population of 429,450 with a population density of 325 people per km ² .
Machinga	https://www.geonames.org/927642/machinga-district.html S 14°56'45" E 35°34'25"	Machinga District has a total land area of 3,582 km ² with a total population of 735,438. It has a population density of 205 people per km ² .
Zomba	https://www.geonames.org/923292/zomba-district.html S 15°25'48" E 35°25'06"	Zomba District has a total land area of 2,363 km ² and a total population of 746,724. It has a population density of 316 people per km ² .

2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities

If none of the above, please explain why:

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

To deliver the complex responses needed to accelerate and enhance the resilience of local communities in the Lake Chilwa basin, a cross-sectoral, community-based approach is required. Throughout the project design and implementation, the proposed project will uphold a participatory approach and conduct ongoing stakeholder consultation periods for all activities, in addition to those that necessarily require the engagement and participation of community members, such as capacity-building, awareness-raising, and resilient livelihood enhancement. Climate change adaptation and resilience interventions in Malawi generally require coordinated and cross-sectoral approaches, involving a range of stakeholders from the public, private and non-governmental sectors, particularly women and youth.

Under the proposed TRANSFORM project, new technologies and practices will be generated through a system that is supported by public and private sector stakeholders. This approach to adaptation will be self-sustaining and responsive to continuous changes in climate conditions. Women and young people form the foundation of this approach given their vulnerability and role that they play in small-holder subsistence production and agricultural adaptation. The youth constitutes more than 70% of the total population of Malawi, however, they have limited access and control over land and other natural resources. They are often marginalised in programmes designed to enable climate-resilient livelihoods as they are considered dependants. However, there is growing engagement of the youth in enterprise development and innovation identification in Malawi that the TRANSFORM project will leverage. Young people offer extensive human resource potential, which will contribute to increasing Malawi's productive capacity and potential towards sustainable economic growth and development. The equitable participation of women, men and youth will be ensured during both project development and implementation to maximise ecosystem adaptation benefits, promote gender equity and equality and promote long-term sustainability of the proposed interventions.

The primary project stakeholders and descriptions of their respective roles and responsibilities are summarised in the table below. The stakeholders and their respective project contributions and roles will be confirmed during the PPG phase. During the PPG and implementation phases, the project will also ensure that representatives of relevant ongoing initiatives and projects are regularly consulted to enhance effective and informed collaboration and complementarity.

Stakeholder(s)	Role in the project
Ministry of Forestry and Natural Resources	The Ministry of Forestry and Natural Resources (MoFNR) – under the

<p>Ministry of Forestry and Natural Resources (MoFNR)</p>	<p>The Ministry of Forestry and Natural Resources (MoFNR) – under the Environmental Affairs Department – will be the Implementing Partner for the project. Consequently, the Ministry will be accountable for project results, as well as coordination, monitoring and evaluation of project interventions. The Environmental Affairs Department will coordinate and mobilise District Environmental Officers, who will take the operational lead in the target districts. Similarly, the Department of Forestry will support implementation of forestry-related activities.</p>
<p>Department of Disaster Management Affairs (DoDMA)</p>	<p>The project will collaborate with the Department of Disaster Management Affairs (DoDMA) on risk-reduction initiatives. In addition, the project will also collaborate with DoDMA's work on identifying areas within the target districts that are particularly vulnerable to the impacts of climate change. This collaborative approach will provide an opportunity for complementarity of efforts, as well as the mainstreaming of disaster risk reduction in district planning and capacity development activities.</p>
<p>Department of Economic Planning and Development and Public Service Reforms</p>	<p>The Ministry of Finance – through the Department of Economic Planning and Development and Public Service Reforms – will update existing environmental budgeting guidelines to include climate change adaptation financing. This will ensure the allocation of suitable funds for adaptation efforts in Malawi.</p>
<p>Ministry of Agriculture, Water Development and Irrigation</p>	<p>The Ministry of Agriculture, Water Development and Irrigation will use the Agriculture Sector Wide Approach (ASWAp) in the target areas of the project related to food security, risk management, agri-business, and soil and land management. The Departments of Water Resources and Irrigation and Fisheries will act as the partners responsible for supporting implementation of the related interventions. In addition, the Department of Fisheries is implementing a new project in the Lake Chilwa basin supported by the African Development Bank (ADB). The proposed TRANSFORM project will complement the ADB project by targeting a similar area while promoting climate-resilient livelihoods, including fishing.</p>
<p>Ministry of Local Government and Rural Development</p>	<p>The Ministry of Local Government and Rural Development is the focal point for collaborating with District Councils. This collaborative role will include to oversee and coordinate district-level training and capacity-building activities in order to ensure complementarity with other ongoing climate change-related training at a local level. Within the Ministry, the District Development and Planning Unit will be the focal point for</p>

	<p>nistry, the Director of Planning and Development will, <i>inter alia</i>, supervise gender-responsive project implementation at the district level.</p>
<p>Zomba District Council, Phalombe District Council and Machinga District Council</p>	<p>The District Councils (Zomba, Phalombe and Machinga) will be the responsible partners for the implementation of all project outcomes. The District Development Plans (DDP) for the target districts (excluding that of Phalombe) were revised in the preceding projects. The TRANSFORM project will upscale best practices to the new target areas and provide support in implementing the DDP.</p> <p>The District Councils will also implement the priority adaptation activities, as well as contribute to project level M&E. At the district level, officials from the departments of environment, forestry, water, irrigation, social welfare and community development will be engaged in the implementation of adaptation initiatives.</p>
<p>United Nations Agencies</p>	<p>In line with the United Nations' (UN) commitment to "Deliver as One", the project will collaborate and engage with existing UN Agencies in the target districts – including World Food Programme (WFP) and Food and Agricultural Organisation (FAO) for complementarity and efficient resource use. Where possible, the project will support joint planning, implementation and monitoring.</p>
<p>NGOs/CBOs</p>	<p>The project will work with currently active NGOs and CBOs in Malawi, both at a national and district level. These will include: i) Leadership for Environment and Development (LEAD); ii) Lake Chilwa Trust; iii) Action Aid; iv) United Purpose; v) Care International; vi) CADECOM; vii) Red Cross; viii) NASFAM; ix) World Vision; x) Total Land Care; xi) Emmanuel International; xii) Action Aid International; and xiii) Save the Children. A number of these NGOs and CBOs will be involved in the project's cross-sectoral strength, weakness, opportunity and threat (SWOT) assessments, in addition to providing support for the implementation of tangible ecosystem management and adaptation activities. This support will depend on the needs identified, the relative strengths and joint monitoring of the project. Local women's CBOs will be identified to ensure gender equality remains a focus during capacity building in climate change adaptation and resilience interventions.</p>
<p>Project beneficiaries at a community level</p>	<p>While all residents in the three districts should benefit from the project as a result of ecosystem-based adaptation (EbA) and management</p>

	<p>t interventions, direct beneficiaries of adaptation interventions and resilience building will be ~10,000 households (3,000 households in Machinga, 4,000 households in Zomba and 3,000 households in Phalombe). The project will be implemented in the following Traditional Authorities (TAs): i) Zomba TAs: Nkumbira, Malemia and Kuntumanji; ii) Machinga TAs: Kawinga, Chamba and Mchinguza; and iii) Phalombe TAs: Kaduya, Nkhulambe and Juma.</p> <p>Within the three districts, direct project beneficiaries will be prioritised and selected based on vulnerability, adaptation capacity and extent of dependence on natural resources at the household level.</p>
The Lake Chilwa Basin Trust	The Lake Chilwa Basin trust is comprised of relevant stakeholders in the basin that support the coordination and planning across sectors and groups in the basin. Besides the local governance structures, the project will continuously consult on proposed interventions and initiatives with the trust and utilise the platform for cross-district coordination.
Forestry Research Institute of Malawi (FRIM)	FRIM conducts forestry-related research to generate novel technologies and provide information for sustainable management, conservation and use of forests/trees and other natural resources. Their stakeholder-oriented approach is aimed at contributing to improving the welfare of the Malawian population. FRIM's expertise will be leveraged to assist in the design and implementation of interventions including afforestation, agroforestry and non-timber forestry products (NTFPs).
World Fish Centre	The World Fish Centre is an international, non-profit research organisation with a mission to promote sustainable, productive fisheries and aquaculture to improve food and nutrition security, increase income and improve livelihoods, promote economic growth and protect the environment and natural resources. Their knowledge would be complementary to successful implementation of project activities focused on enhancing the resilience of fishing-related livelihoods.
Foreign, Commonwealth and Development Office (FCDO)	In the last five years, aid from the UK (through the FCDO) has played a considerable role in improving health outcomes in Malawi, contributing to halving child mortality rates and reducing the average number of children per family from six to four. UK aid helps prevent the escalation of humanitarian crises, including hunger and disease brought about by flooding and drought. The proposed LDCF project will leverage

	<p>...by meeting and engaging the proposed local project implementers to connect with target beneficiaries to achieve the project's objective of increased climate resilience of local communities.</p>
International Fund For Agricultural Development (IFAD)	<p>IFAD is an international financial institution and specialised UN agency based in Italy, operating as the UN's food and agriculture hub. They invest in rural communities, empowering them to increase their food security, improve the nutrition of their families and increase their incomes. IFAD therefore helps rural communities build resilience, expand their businesses and gain autonomy over their own development – providing a knowledge and experience platform to draw from when implementing agricultural-related activities.</p>
Malawi Drought Recovery and Resilience Project (MDRRP)	<p>Approved for funding from the World Bank Group from 2016–2021, the objective of the MDRRP is to support the Government of Malawi to meet the immediate food security and livelihood strategy requirements of the communities affected by drought, as well as promote their recovery and resilience. Through a proposed Contingent Emergency Response Component, the project may also provide immediate recovery support to the GoM in the event of an emergency.</p>
Agriculture input suppliers	<p>The project will collaborate with several organisations supplying agriculture inputs within Malawi and in the Lake Chilwa basin. These will include <i>inter alia</i> Agri-Input Suppliers Association of Malawi (AISAM), Agro-Input Supplies Limited (AISL), National Smallholder Farmers Association (NASFAM), International Centre for Soil Fertility and Agricultural Development (IFDC) and Enterprise Development and Training Agency (EDTA).</p>
Micro-finance institutions	<p>By collaborating with micro-finance institutions, the project will enable communities surrounding the Lake Chilwa basin to participate in economic activities and improve their livelihoods. The Malawi Microfinance Network (MAMN) comprises several micro-finance institutions in Malawi, including Foundation for International Community Assistance (FINCA) Limited, Malawi Rural Development Fund, MicroLoan Foundation, CARE Malawi, A Self-Help Assistance Program (ASAP) and Malawi Rural Finance Company (MRFC) Limited.</p>

3. Gender Equality and Women's Empowerment

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

The impacts of climate change are known to disproportionately affect women and girls, compromising their adaptive capacity and livelihoods. Women in Malawi constitute slightly more than half the total population (52%) of ~18.6 million. In 2018, the country had a UN Gender Inequality Index (GII) value of 0.615, ranking 149 out of 162 countries, as well as a 2019 OECD Social Institutions and Gender Index Score of 41%/High Inequality. Cultural stereotypes contribute further to the marginalisation of women and girls in Malawi, particularly with regards to inheritance, divorce, livelihoods, and gender-based violence (GBV). Additionally, although the country's constitution upholds non-discrimination, customary law practices reinforce discriminatory practices against women with regards to ownership and decisions pertaining to land and natural resources. Other factors that may contribute to gender-differentiated land rights include high levels of female illiteracy and women's lack of knowledge on their rights. These factors also contribute to lower uptake of financial resources and credit from formal institutions, compounded by a lack of financial literacy, collateral and entrepreneurship, in addition to the aforementioned discriminatory cultural practices^[1]. Consequently, there are higher incidences of poverty in women-headed households (30%), with less adaptive capacity to escape poverty or build resilience to climate change. Advancing gender equality and women's empowerment is essential to address Malawi's widespread inequalities and reduce climate change vulnerability among target communities.

UNDP, in collaboration with the GoM, is focused on developing women leaders and promoting gender equity. In alignment with Malawi's National Gender Policy, the proposed project will identify opportunities to increase women's participation in the project's activities and decision-making processes. UNDP works to give women and girls more opportunities by integrating strategies to promote gender equality and the empowerment of women in all development projects. The proposed project will target ~60% of women in the three districts to enable their transition to more climate-resilient livelihoods, as well as 5% of youth. Further, the proposed project will monitor and report on gender integration efforts by developing gender-disaggregated and -responsive indicators in the project's log frame. A gender assessment will be conducted in the early stages of project development to identify gender-based barriers to, and socio-economic factors and catalysts for, building resilience in various social groups. The assessment's findings will inform project design, as well as quantitative and qualitative indicators to measure the project's gender-sensitivity and -responsiveness. The opportunities identified to increase and ensure the participation of women in the project activities are listed below.

- Ensuring proportional representation and participation of women and youth by adopting a participatory and bottom-up approach in the design and implementation of consultative processes, taking into consideration women and men's differential access to decision-making spaces and their professional and domestic duties and responsibilities;
- Integrating gender-disaggregated, -sensitive and -responsive indicators and targets in the results framework of the project at the PPG phase;
- Ensuring that the findings of the gender assessment are incorporated into the design of project activities and implementation methodologies; and
- Integrating gender-disaggregated and -responsive indicators in the monitoring and reporting system to be developed under Component 2.
- Providing direct support to women entrepreneurs and MSMEs headed by women, and focussing strongly on gender-responsiveness in all project activities.

[1] OCED. 2019. Social Institutions and Gender Index Country Report: Malawi. Available: <https://www.genderindex.org/wp-content/uploads/files/datasheets/2019/MW.pdf>

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

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

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Across Malawi, there is limited investment in adaptation-infrastructure support initiatives and corresponding technologies because of, inter alia, limited: i) institutional and technical capacity; ii) capital investment; and ii) engagement of private sector actors. To overcome this, the proposed project will foster the development of climate-resilient infrastructure at household- and community-levels through strengthened private sector linkages. This will include promoting the uptake of household post-harvest storage facilities, value addition technologies, innovative irrigation systems and small-scale agro-processing facilities such as solar dryers. In addition, the project will leverage progress in sustainable construction standards to enhance the resilience of infrastructural interventions, as well as devise mechanisms to initiate models for replication, upscaling and capacity-building at the community-level. To complement this, the project will facilitate collaboration between potential investors and community enterprises to develop technologies and enhance investment in alternative livelihoods – using evidence from value chain analysis and best practices in the region. Consequently, the TRANSFORM project will support investments in adaptation technologies with multiple benefits that extend across communities. By enabling the use of innovative and improved technologies such as drip irrigation systems, as well as increased access to markets and lucrative value chains, communities surrounding the Lake Chilwa basin will be able to transform their livelihoods from a state of limited adaptive capacity to one that is sustainable and climate resilient. Moreover, to ensure the long-term sustainability of infrastructural and market-based interventions, considerable investments will also be made under the project in facilitating linkages and capacities to sustain these and other infrastructure investments.

In the project target area, private sector activity is dominated by small- and medium-sized enterprises (MSMEs), with larger private sector actors – such as seed companies and retailers – linked to local communities through complex value chains. These value chains will be harnessed and strengthened by project interventions to ensure investments lead to enhanced adaptive capacity, scaling-up and knowledge-sharing. Previous projects on climate change adaptation and resilience building in Malawi have emphasised the use of private sector partnerships to ensure effective and efficient implementation of market-based interventions. However, there has been limited progress in engaging the private sector to participate in relevant adaptation activities. This project will bridge that gap by supporting decision-making on planning and investment in EbA and climate-resilient enterprises, risk management, and further encourage the expansion and strengthening of value chains across multiple priority sectors. Additionally, the project will provide an opportunity for encouraging the private sector to invest in climate adaptation through the awareness of the economic and social benefits of increasing the resilience of communities. This will be achieved by ensuring that relevant stakeholders, including the private sector, are aware of the potential climate change risks and impacts on their operations, as well as the range of available interventions to manage climate-related uncertainties. Under the proposed project this will be supported by the CoBRA adaptation planning tool which can identify appropriate adaptation solutions in the relevant priority sectors that are affected by climate change. For example, in Malawi, the agriculture, water, forestry, energy, and infrastructure sectors have been deemed as highly vulnerable to climate change as well as a priority for adaptation.

Additional private sector engagement will be ensured through the development of a Sustainable Climate Finance Facility (SCFF) under Component 3. This facility will be used to attract funds from private investors to facilitate investment in innovative climate-resilient livelihoods, enterprises and value chains. The

first stages of SCFF development will entail the establishment of a dedicated funding window for climate change adaptation within the MICF, thereby ensuring capitalisation of the SCFF. Subsequently, the SCFF will be transferred to the National Climate Change Fund (NCCF), which is currently in the final stages of development. Thereby, the SCFF will draw on existing institutional, technical and human resources capacity of the MICF, which will subsequently be transferred to the NCCF, thereby increasing its long-term sustainability.

Notable outcomes of the SCFF facility that will induce a transformative shift towards a gender-sensitive, sustainable and climate-resilient development pathway in the Lake Chilwa basin, will include: i) enhancing the climate and financial literacy of artisanal farmers and fisherfolk in the target districts – with a specific focus on women and youth; and ii) enhancing access to micro-finance through, for example, village banks/savings associations. As a result, already-established MSMEs will be able to de-risk their activities, diversify their product and service offerings, access new and high value markets and attract external investment.

Concurrent provision of technical assistance (which is currently absent from the MICF) to upskill entrepreneurs and businesses will also ensure additionality and enhance the resilience of relevant enterprises. Furthermore, concessional capital and/or grant funding provided through the new adaptation window (to be determined at the PPG phase) will be made available for MSMEs with enhanced technical capacity and financial literacy to improve the resilience of priority sectors to climate change. This will be achieved by using the concessional capital and/or grant funding to implement adaptation-related activities, ensuring increased adaptive capacity across multiple economic sectors.

To further increase linkages between artisanal fisherfolk/farmers and the formal banking sector, training/upskilling services will be provided which will increase the number of formally registered enterprises in the basin, enabling them to open bank accounts. Specifically, to enhance the uptake of micro-finance services and access to credit, for artisanal farmers and fisherfolk as well as aspiring young and/or female entrepreneurs, training on sustainable and efficient business operations will be provided under this output

To complement the above activities and further facilitate private sector engagement, lessons learned and recommendations from value chain analyses conducted under the Adapt Plan project will be used to identify priority areas for support from the private sector. Where necessary, additional value chain analyses will be undertaken under the proposed GEF project. Finally, considering the complexity in engaging the private sector alongside the informal nature of many MSMEs in Malawi, the project will partner with UNDP's Private Sector Development Unit, and other private sector linkage platforms to assist with establishing and maintaining partnerships across and within value chains.

5. Risks to Achieving Project Objectives

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

Major Risk	Type	Description	Expected impact and Probability (Scale from 1 (low) to 5 (high))	Mitigation Actions
Climate shocks and hazards	Environmental	Extreme weather events (such as droughts, floods and hailstorms) at project sites during implementation may damage or destroy EbA activities implemented through the project.	Probability: 4 Impact: 5	<p>Beneficiaries will be sensitised and capacitated to complement relevant activities with irrigated agriculture.</p> <p>The project management team will establish mechanisms to ensure that infrastructure meets the relevant standards to withstand extreme weather events.</p> <p>The project will use climate-related information and early warning systems to ensure farming activities are conducted during appropriate periods.</p>
Limited alignment and harmony among district councils	Political	The buy-in of district councils will ensure adequate technical support and effective monitoring of interventions. However, the absence of sufficient buy-in will impact the implementation of the project.	Probability: 2 Impact: 4	<p>Consultative meetings to be held to raise awareness, align expectations and encourage participation.</p> <p>Strengthen involvement and capacity of district structures in the early stages of project design to ensure alignment</p>

		Limited harmony of existing coordination mechanisms results in the duplication of initiatives among relevant stakeholders. This also contributes to undermining opportunities for complementarity.		ent among stakeholders. The project will use existing district and national coordinating structures and work with responsible parties to address any coordination gaps. Ensure ownership of national strategies by working within the framework of decentralised government.
Staff turnover within the project and at district council	Organisational and technical	Staff may leave the project team and district council during the project lifespan.	Probability: 1 Impact: 2	The project management teams will ensure that staff turnover is conducted in an efficient manner with the appropriate stakeholders. In addition, the project team will ensure project records and information management systems are well-organised despite staff turnover.
Limited staff capacity to facilitate project activities.	Organisational and operational	High vacancy rate of extension service positions in councils affects project implementation.	Probability: 3 Impact: 4	Liaise with relevant ministries to identify ways of filling gaps in technical expertise.
Delays in disbursement of funds	Operational	Development partners require appropriate finance mechanisms, and this may result in delays in the disbursement of funds.	Probability:3 Impact:4	The project management team will ensure that all necessary fiducial processes are established within appropriate timelines, with relevant staff oriented on UNDP finance and administration systems. In addition, existing finance personnel will provide support to the project finance team.
Reluctance to mainstream gender equity	Contextual and cultural	Traditional and cultural stereotypes which limit the participation of women in productive activities and positions of authority may be perpetuated during	Probability: 5 Impact: 3	Ensure application of Sendai Guidelines on social inclusion. Conduct relevant gender assessments and include considerations of gender dynamics during project design and implementation.

		ng project design and implementation.		Design sub-activities to ensure proportionate participation of women and youth. Ensure proportionate representation of women and youth in relevant committees.
Rejection of proposed interventions by communities	Contextual and cultural	Limited consultation and involvement of target communities during the design of the proposed project may result in communities rejecting the proposed interventions.	Probability: 2 Impact: 4	The project management team will ensure early involvement and extensive consultation of target communities during the development and design of proposed project interventions.
Maladaptation of proposed project interventions	Contextual	Proposed interventions may be maladapted if they are not context-specific to each target district.	Probability: 2 Impact: 4	Ensure in-depth consultative processes with district stakeholders during PPG phase.
Implementation disruptions caused by COVID-19	Operational and contextual	Measures put in place by Government may delay implementation of planned project activities and may limit community participation. Also, COVID-19 disruptions on value chains may affect market access by local communities	Probability: 2 Impact: 4	Build synergies between project activities with COVID-19 recovery. Support project partners (government, local authorities) with diversified communications approaches that can be used under COVID-19 disruptions. During PPG stage, ensure realistic timeframes and budgets are set to take into account COVID-related challenges. Design the project to support broader resilience building.
COVID-19 response measures that are counter-resilience building	Technical	Measures to respond and recover from COVID-19, supported and financed by other actors such as donors, Government, private sector, may promote approaches that are maladaptive, or reinforce reli	Probability: 2 Impact: 3	Design projects to contribute to building back better and greener, and to build resilience and generate greener jobs and incomes.

		ance on technologies that increase GHG emissions		
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Risks and opportunities in the context of the COVID-19 pandemic

As a result of the ongoing COVID-19 pandemic, a state of national disaster was declared on 12 January 2021, and remains in place. As of April 2021, ~34,000 cases of COVID-19 have been confirmed in Malawi, with a total ~231,000 suspected cases throughout the country^[1]. However, vaccinations have started in Malawi on 11 March 2021, with a total of 164,733 people vaccinated by 6 April 2021. The GoM aims to vaccinate 3.8 million people by the end of 2021. As stated in the table above, the current COVID-19 pandemic may not only disrupt the implementation of the proposed project, but response measures to mitigate the spread of the virus may result in increased climate-vulnerability of local communities in Malawi. The proposed project will mitigate the risks of COVID-19 while vaccinations across the country progress by building synergies between project activities with COVID-19 recovery – with specific focus given to green recovery. Project partners (government, local authorities) will be supported with diversified communications approaches that can be used under COVID-19 disruptions. During PPG stage, realistic timeframes and budgets will be set to take into account COVID-related challenges. The project design will be strengthened to support broader resilience building while also responding to the root causes of vulnerability that are being exacerbated by the pandemic. The COVID-19 Response strategy, to be elaborated at PPG stage, will undertake a full analysis of the risks posed by the pandemic, especially to the vulnerable communities, their production systems and the value chains that they are involved in. The focus of the response strategy will include:

- The mitigation measures that will ensure the pandemic will have minimal effect on project delivery
- The response measures, including awareness, training and capacity enhancement, stabilizing production, markets and value chains, enhancing the natural resource base and agricultural production. The relevant ones will be integrated into specific project outputs and activities, especially under Outcome 2.
- This project naturally lends itself to supporting opportunities for building back better and greener for Malawi. Such opportunities will be elaborated at detailed design, with the private sector and innovative aspects of the project creating a platform for scaling up building back better and greener in Malawi.

[1] GoM. 2021. Confirmed cases nationwide. Available at: <https://covid19.health.gov.mw/?fbclid=IwAR3o91QivQRRhV14Ra2dcvTU3moeeJAJFqfCtnFr3kqQP4C4BTv1-xSZweo>

6. Coordination

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

The TRANSFORM project will be directly complementary to the SFAD-project, which is currently in the PPG phase. The two projects will identify avenues for coordination at national level (through steering committee) and district level. This will extend to open information sharing and co-planning where possible (in co-hotspots). TRANSFORM will also collaborate with and leverage gains and innovations from UNDP-supported projects, including: i) climate-resilient infrastructure in Disaster Risk Management for Resilience (DRM4R), Building Resilience and Adapting to Climate Change (BRACC) and Promoting Sustainable Partnerships for Empowered Resilience (PROSPER); ii) climate information services in M-CLIMES; iii) enterprise development under the Malawi Innovation Challenge Fund (MICF) and Growth Accelerator; and iv) EbA and management innovations under the National Climate Resilience Programme (NCRP). Of these M-CLIMES is a GCF-funded project. In addition, the project largely depends and builds on the best practices and impacts of the GEF's Adapt Plan and Climate Proofing projects.

Implementation and coordination structure

The proposed project will be implemented through strong collaboration with the SFAD-WM project. Coordination between the projects will occur at three levels outlined below.

- Steering Committee: the lead agencies under the SFAD-WM project (including the Ministry of Forestry and Natural Resources) will be on the TRANSFORM Steering Committee. Work plans for both projects will be shared and approved at this level. Equally, joint annual planning sessions between the PMUs will be supported to ensure there is no duplication.
- Technical reference group: This project will establish a technical reference group including the technical partners under each project.
- Local level: the two projects will work with the same Beach Village Committees.

A schematic diagram of the project implementation and coordination structure for the TRANSFORM project is provided below. Detail on the roles of different entities is presented further down.

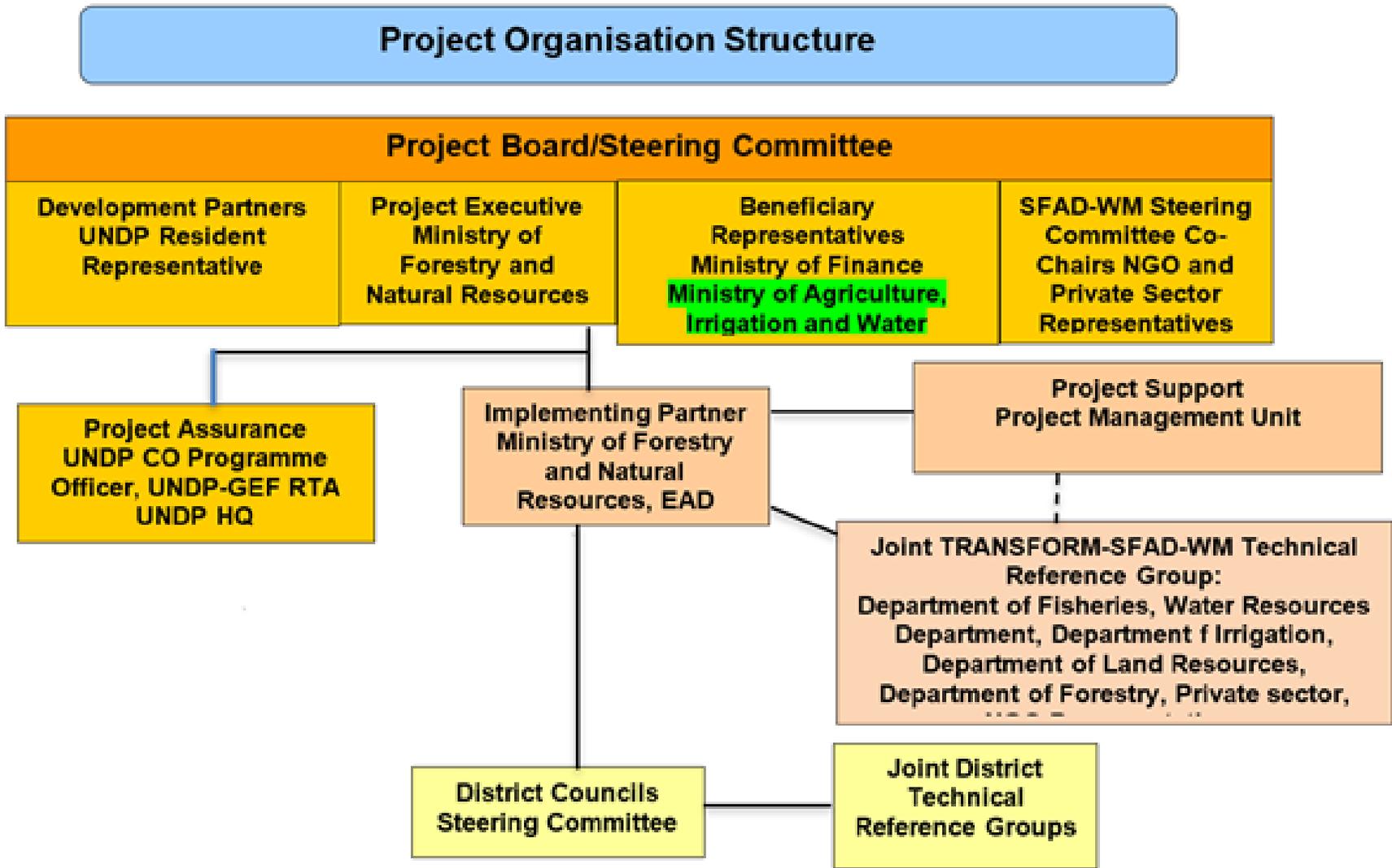


Figure 2. Project implementation and coordination structure.

Under the National GEF Steering Committee, the project will coordinate with other GEF-supported programmes implemented by the GoM that focus on climate change adaptation or the strengthening of resilient livelihoods. Building on the Adapt Plan and Climate Proofing projects, the proposed GEF project will provide the GoM with improved information. This will include information on best practices and lessons learned, as these projects aimed to strengthen adaptation

capacity throughout and across government institutions. In addition, the proposed GEF project will collaborate and coordinate with the National Climate Resilience Programme – UNDP’s overarching programme to support Malawi in climate change management, policy coherence and ecosystem management. Through this programme, Malawi has completed the formulation of a National Climate Change Investment Plan, National Climate Change Policy, and the preparation of a climate change monitoring and evaluation (M&E) framework. The proposed project will ensure that these are considered and incorporated into the project design, ensuring country ownership and alignment with national strategies.

The Ministry of Forestry and Natural Resources will be the Executing Agency for the project as well as the project’s Implementing Partner (IP), accountable to UNDP for project management. Within the Ministry, the EAD will be responsible for efficient and effective implementation of project interventions, as well as monitoring and evaluation. They will also ensure that project resources are effectively managed and utilised according to UNDP policies and regulations, as outlined under UNDP’s National Implementation Modality (NIM). The EAD will collaborate and work closely with other project partners, including the: i) Department of Forestry; ii) Ministry of Agriculture, Irrigation and Water Development; iii) Department of Land Resources’ Department of Irrigation; iv) Department of Land Resources Conservation; v) Department of Agriculture Extension and Advisory Services; and vi) Fisheries Department. At the district level, the project will be supervised by the Director of Planning and Development (DPD) operating within the Ministry of Local Government and Rural Development. District-level coordination of project activities will be undertaken by the Directorate of District Planning, which is headed by the DPD. The District Environmental Sub-Committee (DESC) will be the main coordinating body and the Environmental District Officers (EDOs) will serve as the secretary to the DESC, in addition to being the technical focal point for this project. A Project Coordination Committee (PCC) – consisting of members from the target districts – will be established to oversee the implementation of Annual Work Plan (AWP) interventions and provide backstopping services associated with increasing resilience and ecosystem management. The PCC will have equitable representation of women and youth and will meet bi-annually at meetings scheduled to occur on a regular basis at the district council level.

A project team – consisting of a single Project Manager, two Project Coordinators and a Finance and Administration Assistant – will be recruited for each district. In close collaboration with the DESC, the project team will be responsible for the day to day management of the project, as well as related activities during the implementation phase of the project. The project team will be located at the district council and will also be responsible for engaging with stakeholders and coordination structures within the district. A project bank account will be created in the relevant districts – and managed in accordance with UNDP guidelines – through which funds will be transferred to support project implementation and operational and staff support.

The project team will hold periodic coordination meetings, including Inter-District Joint Project Coordinating platform meetings, which involve the planning and monitoring of projects between districts and with relevant stakeholders. These meetings and platforms will be used to foster learning, review progress, share and validate workplans, and engage with national-level stakeholders for technical contributions. Through the joint forum, the project team will also link with the relevant national coordination structures – including the National Technical Committee on Climate Change and the National Steering Committee. The Project Board (also referred to as the Project Steering Committee (PSC)) will be responsible for consensus management decision-making when the project team requires assistance and direction – including recommendations for UNDP and/or IP approval of project plans and revisions.

The Project Assurance: UNDP provides a three – tier supervision, oversight and quality assurance role –involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed.

This proposed institutional structure will be validated during the PPG phase in consultation with all lead agencies. Based on the understanding that execution and oversight roles of UNDP need to be separated, the PPG stage will explore, together with the IP, different options for supporting the areas of support listed above that do not necessarily involve UNDP. These options, which may include government itself, NGOs or private players, will be assessed on the basis of a number of criteria to reach an arrangement that will work for the project with minimum risks. Any issues and limitations identified will be communicated and discussed with the Government and the GEF early in the PPG process.

The project will also coordinate with several other projects to ensure complementarity and scaling up of practices, including coordination with the following as examples.

Climate Investor One (2018–2039; ~US\$ 820 million; EAD, *Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden* (FMO)).

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The objective of this GCF-funded project is to provide financing to develop renewable energy projects in regions with power deficits, with the overall aim of reducing energy costs and CO₂ emissions. The 11 countries in this initiative are identified as experiencing sizable energy deficits, while also being overly reliant on fossil fuels. A major constraint in clean energy investment in these countries (including Malawi) is limited availability of early-stage project financing, combined with insufficient domestic and overseas financing to support the creation of domestic renewable energy markets at scale. Climate Investor One (CIO) uses a blended finance facility. The first component is a development fund, which provides loans in the early stages of a project life cycle. The second component, a construction equity fund, will meet up to 75% of total construction costs in tandem with the project sponsor. Compared with conventional project financing, CIO reduces the need for complex multi-party financing structures, with the potential to thereby reduce the time and cost associated with delivering renewable energy projects. The anticipated lifespan of this project is 20 years, with an estimated 53.7 million tonnes of CO₂ emissions avoided. The proposed GEF project will complement CIO by contributing to avoided emissions of CO₂ through mitigation elements, therefore also contributing to Malawi's NDC.

Scaling Up the Use of Modernised Climate Information and Early Warning Systems in Malawi (M-CLIMES) (2017–2023; ~US\$ 12.3 million; GCF; UNDP)[1]

M-CLIMES is a GCF-funded project aimed at protecting the lives and livelihoods of vulnerable communities in Malawi from climate-related disasters and enhancing their climate resilience through the establishment of early-warning systems. The project is intended to directly benefit ~1.4 million and indirectly benefit ~700,000 people by enhancing Malawi's technical and financial capacity for disaster preparedness, as well as the barriers in accessing weather and climate information. The primary activities implemented under the project include:

- expanding Malawi's meteorological networks generating climate-related data;
- installing automated weather stations, hydrological monitoring stations and lake-based weather buoys; and
- increasing community-based capacity to identify risks and forecast impacts, particularly in flood-prone areas.

[1] Green Climate Fund (GCF). Scaling Up the Use of Modernized Climate Information and Early Warning Systems in Malawi. Available at: <https://www.greenclimate.fund/project/fp002>

7. Consistency with National Priorities

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

Yes

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

Relevant national strategies, plans, reports and assessments:

- National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC
- National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD
- National Communications (NC) under UNFCCC
- Technology Needs Assessment (TNA) under UNFCCC
- Poverty Reduction Strategy Paper (PRSP)
- National Resilience Strategy
- Malawi Growth and Development Strategy (MGDS)
- Sustainable Development Goals (SDGs)

The GoM has prioritised climate change in its national development planning because of its impacts on Malawi's socio-economic development. The government also recognises that climate change adversely affects the general livelihoods and well-being of the population, consequently compromising the achievement of the Sustainable Development Goals (SDGs). Climate change, natural resources and environmental management constitute the nine priority areas outlined in the 'Malawi Growth and Development Strategy III 2018-2022 (MGDSIII)' – the country's medium-term strategy for obtaining long-term national development aspirations.

There is considerable political buy-in from the GoM to ensure that climate change is addressed by developing policies and strategies for climate change programming and management. This political will is evident in several national policies and strategies that have been formulated and enacted, including the: i) National Climate Change Management Policy; ii) National Forestry Policy and Meteorology Policy; iii) Energy Policy and Disaster Risk Management Policy; iv) Fisheries Policy; v) National Resilience Strategy; vi) Renewable Energy Strategy; vii) National Biodiversity Strategy and Action Plan; viii) National Forest Landscape Restoration Strategy and National Charcoal Strategy; ix) National Climate Change Investment Plan and National Agriculture Investment Plan; and x) Environmental Management Act (EMA). These policies and strategies are being implemented by the relevant national ministries and departments to ensure the achievement of intended goals and objectives. Recently, the Department of Environmental Affairs – under the Ministry of Environment, Tourism and Wildlife – in liaison with UNDP, embarked on the establishment of the National Climate Change Fund in Malawi. This will act as a reserve of resources to complement additional and alternative sources of funding for climate change adaptation and management in Malawi.

8. Knowledge Management

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

To build on and directly link with the SFAD-WM project, TRANSFORM will have a strong focus on information and knowledge management. TRANSFORM will collaborate with the SFAD-WM project on the development of a well-coordinated knowledge management plan. This will include gathering and dissemination of success stories, best practices, lessons learned and innovations which will be regularly documented to reflect relevant stakeholders and communities' experiences. Knowledge generated under these projects will be fed into the knowledge-management hub established under Component 3 of TRANSFORM. The knowledge stored in this hub will be used for advocating reform on selected adaptation issues, as well as for promoting replication of best practices in other areas – particularly in ecosystem management and resilience building. The project will additionally develop an awareness-raising campaign, detailing the elements of media outputs to be used (such as television or radio) the frequency of use and the target audience. Collectively, the storage of knowledge and information in a central location will greatly increase the scalability of interventions implemented under both projects, and will contribute to upscaling EbA across Malawi. Detail on the structure of the knowledge-management plan linking TRANSFORM and SFAD-WM will be explored during the PPG phase.

Information dissemination platforms and mechanism – such as policy briefs, infographics and brochures – will also be developed and used to stimulate behavioural change within and beyond the project target areas. Numerous communication channels will be used to target audiences in both the project area and across the country, including exchange visits, capacity building and training, media engagement, printed publications and online outlets. Knowledge products from the project will be disseminated – in accordance with the project's visibility plan – to beneficiaries, development partners and the general public. The project will also use additional platforms to disseminate the project experiences and results, including symposiums, policy dialogues and related forums and networks. Success stories of gender equality and women and youth empowerment will also be profiled. To ensure the above knowledge-sharing and -management mechanisms are effective, the proposed project will incorporate activities to strengthen Malawi's knowledge-management systems, under all three project components. Moreover, the project will also support the collection of lessons learned from the mainstreaming of climate change into sub-national and national planning as a means of improving adaptive capacity and resilience building.

9. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF

CEO Endorsement/Approval MTR

TE

Medium/Moderate

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Kindly refer to the project's Social and Environmental Screening Procedure (SESP) template.

Supporting Documents

Upload available ESS supporting documents.

Title

Submitted

6608 Malawi_GEF_LDCF_PIF_Annex D_Pre-SESP_22 Sep 2020

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

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

Name	Position	Ministry	Date
Shamiso Najira	Deputy Director of Environmental Affairs Department & GEF Operational Focal Point	Ministry of Forestry and Natural Resources	3/16/2021

ANNEX A: Project Map and Geographic Coordinates

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

The on-the-ground interventions implemented under the proposed TRANSFORM project will be focussed primarily on the Lake Chilwa basin, as indicated below in Figure 2, Figure 3, Figure 4 and Figure 5. TRANSFORM will be locally appropriate and context specific while also enhancing the scalability of interventions under SFAD-WM. This will be achieved through the development of an EbA plan under Component 2, which will build upon Watershed Management Plans (WMPs) developed under SFAD-WM, thereby linking vulnerable communities to climate financing sources, and demonstrating practically the improved enabling financial environment for adaptation in the basin. This model will then be replicable in other areas of Malawi where SFAD-WM has developed WMPs, and ultimately the combined impacts of TRANSFORM and SFAD-WM will catalyse a country-wide enhancement of the conditions conducive to effective adaptation to climate change.



